

SEQUENCE LISTING

<110> Mutter, George L.

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<151> 2000-07-31

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ctgccgggct	tcgtatccaa	accctcccct	tcaccctctc	tccccaaact	gggcgccagg	3540
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cgggggctct	ccgcaaccgc	accgcctgtc	cgctccccca	cttcccgcgc	tcctcccac	4500
ctactcattc	acccacccac	ccaccagag	ccgggacggc	agcccaggcg	ccggggcccc	4560
gccgtctcct	cgccgcgatc	ctggacttcc	tcttgctgca	ggacccgggt	tcacgtgtg	4620

0993949 03304

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 agcagcaggg agtccgggac ccgggcgga tctgggcca gttaggcgcc gccgaggcca 4740
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 ggagagtggg agtgacgca ggactggcc cccgacatcc tccaaagcca ggcagagcta 5460
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<210> 50
 <211> 1860
 <212> DNA
 <213> Homo sapiens

<400> 50
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 gtcaagttga acctgtggga agatgggttg aagcttttgt taagaggaga aacagaaatg 180
 cttctgcctc ttttcaggaa ctggaggata agaaagagtt atccgaggaa tcagaagatg 240
 aagaattgca gttggaagag tttcccatgc tgaaaacact tgatcccaaa gactggaaga 300
 accaagatca ttatgcagtt cttggacttg gccatgtgag atacaaggct acacagagac 360
 agatcaaagc agctcataaa gcaatgggtt taaaacatca cccagacaaa cggaaagcag 420
 ctggtgaacc aataaaagaa ggagataatg actacttcac ttgcataact aaagcttatg 480
 aaatgttatc tgatccagtg aaaagacgag catttaacag tgtagatcct acttttgata 540
 actcagttcc ttctaaaagt gaagcaaagg ataatttctt cgaagtgttt accccagtgt 600
 ttgaaaggaa ttccagatgg tcaaataaaa aaaatgttcc taaacttggg gatatgaatt 660

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catcatttga agatgtagat atatttttatt ctttctggta taattttgat tcttggagag 720
aatttttctta ttttagatgaa gaagaaaaag aaaaagcaga atgtcgtgat gagaggagat 780
ggattgaaaa gcagaacgga gcaacaagag cacaaagaaa aaaagaagaa atgaacagaa 840
taagaacatt agttgacaat gcatacagct gtgatccaag gataaaaaag ttcaaggaag 900
aagaaaaagc caagaaagaa gcagaaaaga aagcaaaagc agaagctaaa cggaaggagc 960
aagaagctaa agaaaaacaa agacaagctg aattagaagc tgctcgggta gctaaggaga 1020
aagaagagga ggaagtcaga cagcaagcat tgctggcaaa gaaggaaaaa gatatccaga 1080
aaaaagccat taagaaggaa aggcaaaaac ttcgaaactc atgcaagata gaagaaataa 1140
atgagcaaat cagaaaagag aaagaggaag ctgaggctcg tatgcgacaa gcatctaaga 1200
acacagagaa atcaactggg ggaggtggaa atggaagtaa aaattgggtca gaagatgatc 1260
tacaattact aattaaagct gtgaatctgt tccttgctag aacaaattca agatgggaag 1320
ttattgctaa ttacatgaac atacattctt cctctggagt caaaagaact gccaaagatg 1380
ttattggcaa agcaaagagt ctccaaaaac ttgaccctca tcaaaaagat gacataaata 1440
aaaaggcatt tgataagttc aaaaaagaac atggagtggg acctcaagca gacaacgcaa 1500
cgcttccaga acgatttgaa ggtccatata cagacttcac cccttggaac acagaagaac 1560
agaagctttt ggaacaagct ttgaaaacat acccagtaaa tacacctgaa agatgggaaa 1620
aaatagcaga agcgggtgct ggcaggacaa agaaggactg catgaaacga tacaaggaac 1680
ttgtcgagat ggtaaaagca aagaaagctg ctcaagaaca agtgctgaat gcaagtagag 1740
ccaagaaatg acaatctttg ttgtgtgtgc atttttataa taaaactgaa aatactgtaa 1800
acattttcat tcttaaaatt atactcatgg taataatttg aaagtaaaaa aaaaaaaaaa 1860

<210> 51
<211> 729
<212> PRT
<213> Homo sapiens

<400> 51

Met His Leu Lys Ile Val Leu Ala Phe Leu Ala Leu Ser Leu Ile Thr
1 5 10 15

Ile Phe Ala Leu Ala Tyr Val Leu Leu Thr Ser Pro Gly Gly Ser Ser
20 25 30

Gln Pro Pro His Cys Pro Ser Val Ser His Arg Ala Gln Pro Trp Pro
35 40 45

His Pro Gly Gln Ser Gln Leu Phe Ala Asp Leu Ser Arg Glu Glu Leu
50 55 60

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Thr	Ala	Val	Met	Arg	Phe	Leu	Thr	Gln	Arg	Leu	Gly	Pro	Gly	Leu	Val	65	70	75	80
Asp	Ala	Ala	Gln	Ala	Gln	Pro	Ser	Asp	Asn	Cys	Ile	Phe	Ser	Val	Glu	85	90	95	
Leu	Gln	Leu	Pro	Pro	Lys	Ala	Ala	Ala	Leu	Ala	His	Leu	Asp	Arg	Gly	100	105	110	
Ser	Pro	Pro	Pro	Ala	Arg	Glu	Ala	Leu	Ala	Ile	Val	Leu	Phe	Gly	Gly	115	120	125	
Gln	Pro	Gln	Pro	Asn	Val	Ser	Glu	Leu	Val	Val	Gly	Pro	Leu	Pro	His	130	135	140	
Pro	Ser	Tyr	Met	Arg	Asp	Val	Thr	Val	Glu	Arg	His	Gly	Gly	Pro	Leu	145	150	155	160
Pro	Tyr	His	Arg	Arg	Pro	Val	Leu	Arg	Ala	Glu	Phe	Thr	Gln	Met	Trp	165	170	175	
Arg	His	Leu	Lys	Asp	Val	Glu	Leu	Pro	Lys	Ala	Pro	Ile	Phe	Leu	Ser	180	185	190	
Ser	Thr	Phe	Asn	Tyr	Asn	Gly	Ser	Thr	Leu	Ala	Ala	Val	His	Ala	Thr	195	200	205	
Pro	Arg	Gly	Leu	Arg	Ser	Arg	Glu	Arg	Thr	Thr	Trp	Ile	Gly	Leu	Tyr	210	215	220	
His	Asn	Ile	Ser	Gly	Val	Gly	Leu	Phe	Leu	His	Pro	Val	Gly	Leu	Glu	225	230	235	240
Leu	Leu	Leu	Asp	His	Arg	Ala	Leu	Asp	Pro	Ala	His	Trp	Thr	Val	Gln	245	250	255	
Gln	Val	Phe	Tyr	Leu	Gly	His	Tyr	Tyr	Ala	Asp	Leu	Gly	Gln	Leu	Glu	260	265	270	
Arg	Glu	Phe	Lys	Ser	Gly	Arg	Leu	Glu	Val	Val	Arg	Val	Pro	Leu	Pro	275	280	285	
Pro	Pro	Asn	Gly	Ala	Ser	Ser	Leu	Arg	Ser	Arg	Asn	Ser	Pro	Gly	Pro	290	295	300	
Leu	Pro	Pro	Leu	Gln	Phe	Ser	Pro	Gln	Gly	Ser	Gln	Tyr	Ser	Val	Gln	305	310	315	320
Gly	Asn	Leu	Val	Val	Ser	Ser	Leu	Trp	Ser	Phe	Thr	Phe	Gly	His	Gly	325	330	335	
Val	Phe	Ser	Gly	Leu	Arg	Ile	Phe	Asp	Val	Arg	Phe	Gln	Gly	Glu	Arg	340	345	350	
Ile	Ala	Tyr	Glu	Val	Ser	Val	Gln	Glu	Cys	Val	Ser	Ile	Tyr	Gly	Ala	355	360	365	
Asp	Ser	Pro	Lys	Thr	Met	Leu	Thr	Arg	Tyr	Leu	Asp	Ser	Ser	Phe	Gly	370	375	380	

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Leu Gly Arg Asn Ser Arg Gly Leu Val Arg Gly Val Asp Cys Pro Tyr	
385	390 395 400
Gln Ala Thr Met Val Asp Ile His Ile Leu Val Gly Lys Gly Ala Val	
	405 410 415
Gln Leu Leu Pro Gly Ala Val Cys Val Phe Glu Glu Ala Gln Gly Leu	
	420 425 430
Pro Leu Arg Arg His His Asn Tyr Leu Gln Asn His Phe Tyr Gly Gly	
	435 440 445
Leu Ala Ser Ser Ala Leu Val Val Arg Ser Val Ser Ser Val Gly Asn	
	450 455 460
Tyr Asp Tyr Ile Trp Asp Phe Val Leu Tyr Pro Asn Gly Ala Leu Glu	
	465 470 475 480
Gly Arg Val His Ala Thr Gly Tyr Ile Asn Thr Ala Phe Leu Lys Gly	
	485 490 495
Gly Glu Glu Gly Leu Leu Phe Gly Asn Arg Val Gly Glu Arg Val Leu	
	500 505 510
Gly Thr Val His Thr His Ala Phe His Phe Lys Leu Asp Leu Asp Val	
	515 520 525
Ala Gly Leu Lys Asn Trp Val Val Ala Glu Asp Val Val Phe Lys Pro	
	530 535 540
Val Ala Ala Pro Trp Asn Pro Glu His Trp Leu Gln Arg Pro Gln Leu	
	545 550 555 560
Thr Arg Gln Val Leu Gly Lys Glu Asp Leu Thr Ala Phe Ser Leu Gly	
	565 570 575
Ser Pro Leu Pro Arg Tyr Leu Tyr Leu Ala Ser Asn Gln Thr Asn Ala	
	580 585 590
Trp Gly His Gln Arg Gly Tyr Gln Leu Val Val Thr Gln Arg Lys Glu	
	595 600 605
Glu Glu Ser Gln Ser Ser Ser Ile Tyr His Gln Asn Asp Ile Trp Thr	
	610 615 620
Pro Thr Val Thr Phe Ala Asp Phe Ile Asn Asn Glu Thr Leu Leu Gly	
	625 630 635 640
Glu Asp Leu Val Ala Trp Val Thr Ala Ser Phe Leu His Ile Pro His	
	645 650 655
Ala Glu Asp Ile Pro Asn Thr Val Thr Leu Gly Asn Arg Val Gly Phe	
	660 665 670
Leu Leu Arg Pro Tyr Asn Phe Phe Asp Glu Asp Pro Ser Ile Phe Ser	
	675 680 685
Pro Gly Ser Val Tyr Phe Glu Lys Gly Gln Asp Ala Gly Leu Cys Ser	
	690 695 700

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Ile Asn Pro Val Ala Cys Leu Pro Asp Leu Ala Ala Cys Val Pro Asp
705 710 715 720

Leu Pro Pro Phe Ser Tyr His Gly Phe
725

<210> 52
<211> 885
<212> PRT
<213> Homo sapiens

<400> 52

Met Ala Trp Arg Cys Pro Arg Met Gly Arg Val Pro Leu Ala Trp Cys
1 5 10 15

Leu Ala Leu Cys Gly Trp Ala Cys Met Ala Pro Arg Gly Thr Gln Ala
20 25 30

Glu Glu Ser Pro Phe Val Gly Asn Pro Gly Asn Ile Thr Gly Ala Arg
35 40 45

Gly Leu Thr Gly Thr Leu Arg Cys Gln Leu Gln Val Gln Gly Glu Pro
50 55 60

Pro Glu Val His Trp Leu Arg Asp Gly Gln Ile Leu Glu Leu Ala Asp
65 70 75 80

Ser Thr Gln Thr Gln Val Pro Leu Gly Glu Asp Glu Gln Asp Asp Trp
85 90 95

Ile Val Val Ser Gln Leu Arg Ile Thr Ser Leu Gln Leu Ser Asp Thr
100 105 110

Gly Gln Tyr Gln Cys Leu Val Phe Leu Gly His Gln Thr Phe Val Ser
115 120 125

Gln Pro Gly Tyr Val Gly Leu Glu Gly Leu Pro Tyr Phe Leu Glu Glu
130 135 140

Pro Glu Asp Arg Thr Val Ala Ala Asn Thr Pro Phe Asn Leu Ser Cys
145 150 155 160

Gln Ala Gln Gly Pro Pro Glu Pro Val Asp Leu Leu Trp Leu Gln Asp
165 170 175

Ala Val Pro Leu Ala Thr Ala Pro Gly His Gly Pro Gln Arg Ser Leu
180 185 190

His Val Pro Gly Leu Asn Lys Thr Ser Ser Phe Ser Cys Glu Ala His
195 200 205

Asn Ala Lys Gly Val Thr Thr Ser Arg Thr Ala Thr Ile Thr Val Leu
210 215 220

Pro Gln Gln Pro Arg Asn Leu His Leu Val Ser Arg Gln Pro Thr Glu
225 230 235 240

Leu Glu Val Ala Trp Thr Pro Gly Leu Ser Gly Ile Tyr Pro Leu Thr
245 250 255

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His Cys Thr Leu Gln Ala Val Leu Ser Asp Asp Gly Met Gly Ile Gln
 260 265 270
 Ala Gly Glu Pro Asp Pro Pro Glu Glu Pro Leu Thr Ser Gln Ala Ser
 275 280 285
 Val Pro Pro His Gln Leu Arg Leu Gly Ser Leu His Pro His Thr Pro
 290 295 300
 Tyr His Ile Arg Val Ala Cys Thr Ser Ser Gln Gly Pro Ser Ser Trp
 305 310 315 320
 Thr His Trp Leu Pro Val Glu Thr Pro Glu Gly Val Pro Leu Gly Pro
 325 330 335
 Pro Lys Asn Ile Ser Ala Thr Arg Asn Gly Ser Gln Ala Phe Val His
 340 345 350
 Trp Gln Glu Pro Arg Ala Pro Leu Gln Gly Thr Leu Leu Gly Tyr Arg
 355 360 365
 Leu Ala Tyr Gln Gly Gln Asp Thr Pro Glu Val Leu Met Asp Ile Gly
 370 375 380
 Leu Arg Gln Glu Val Thr Leu Glu Leu Gln Gly Asp Gly Ser Val Ser
 385 390 395 400
 Asn Leu Thr Val Cys Val Ala Ala Tyr Thr Ala Ala Gly Asp Gly Pro
 405 410 415
 Trp Ser Leu Pro Val Pro Leu Glu Ala Trp Arg Pro Val Lys Glu Pro
 420 425 430
 Ser Thr Pro Ala Phe Ser Trp Pro Trp Trp Tyr Val Leu Leu Gly Ala
 435 440 445
 Val Val Ala Ala Ala Cys Val Leu Ile Leu Ala Leu Phe Leu Val His
 450 455 460
 Arg Arg Lys Lys Glu Thr Arg Tyr Gly Glu Val Phe Glu Pro Thr Val
 465 470 475 480
 Glu Arg Gly Glu Leu Val Val Arg Tyr Arg Val Arg Lys Ser Tyr Ser
 485 490 495
 Arg Arg Thr Thr Glu Ala Thr Leu Asn Ser Leu Gly Ile Ser Glu Glu
 500 505 510
 Leu Lys Glu Lys Leu Arg Asp Val Met Val Asp Arg His Lys Val Ala
 515 520 525
 Leu Gly Lys Thr Leu Gly Glu Gly Glu Phe Gly Ala Val Met Glu Gly
 530 535 540
 Gln Leu Asn Gln Asp Asp Ser Ile Leu Lys Val Ala Val Lys Thr Met
 545 550 555 560
 Lys Ile Ala Ile Cys Thr Arg Ser Glu Leu Glu Asp Phe Leu Ser Glu
 565 570 575

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Ala	Val	Cys	Met	Lys	Glu	Phe	Asp	His	Pro	Asn	Val	Met	Arg	Leu	Ile	580	585	590
Gly	Val	Cys	Phe	Gln	Gly	Ser	Glu	Arg	Glu	Ser	Phe	Pro	Ala	Pro	Val	595	600	605
Val	Ile	Leu	Pro	Phe	Met	Lys	His	Gly	Asp	Leu	His	Ser	Phe	Leu	Leu	610	615	620
Tyr	Ser	Arg	Leu	Gly	Asp	Gln	Pro	Val	Tyr	Leu	Pro	Thr	Gln	Met	Leu	625	630	635
Val	Lys	Phe	Met	Ala	Asp	Ile	Ala	Ser	Gly	Met	Glu	Tyr	Leu	Ser	Thr	645	650	655
Lys	Arg	Phe	Ile	His	Arg	Asp	Leu	Ala	Ala	Arg	Asn	Cys	Met	Leu	Asn	660	665	670
Glu	Asn	Met	Ser	Val	Cys	Val	Ala	Asp	Phe	Gly	Leu	Ser	Lys	Lys	Ile	675	680	685
Tyr	Asn	Gly	Asp	Tyr	Tyr	Arg	Gln	Gly	Arg	Ile	Ala	Lys	Met	Pro	Val	690	695	700
Lys	Trp	Ile	Ala	Ile	Glu	Ser	Leu	Ala	Asp	Arg	Val	Tyr	Thr	Ser	Lys	705	710	715
Ser	Asp	Val	Trp	Ser	Phe	Gly	Val	Thr	Met	Trp	Glu	Ile	Ala	Thr	Arg	725	730	735
Gly	Gln	Thr	Pro	Tyr	Pro	Gly	Val	Glu	Asn	Ser	Glu	Ile	Tyr	Asp	Tyr	740	745	750
Leu	Arg	Gln	Gly	Asn	Arg	Leu	Lys	Gln	Pro	Ala	Asp	Cys	Leu	Asp	Gly	755	760	765
Leu	Tyr	Ala	Leu	Met	Ser	Arg	Cys	Trp	Glu	Leu	Asn	Pro	Gln	Asp	Arg	770	775	780
Pro	Ser	Phe	Thr	Glu	Leu	Arg	Glu	Asp	Leu	Glu	Asn	Thr	Leu	Lys	Ala	785	790	795
Leu	Pro	Pro	Ala	Gln	Glu	Pro	Asp	Glu	Ile	Leu	Tyr	Val	Asn	Met	Asp	805	810	815
Glu	Gly	Gly	Gly	Tyr	Pro	Glu	Pro	Pro	Gly	Ala	Ala	Gly	Gly	Ala	Asp	820	825	830
Pro	Pro	Thr	Gln	Pro	Asp	Pro	Lys	Asp	Ser	Cys	Ser	Cys	Leu	Thr	Ala	835	840	845
Ala	Glu	Val	His	Pro	Ala	Gly	Arg	Tyr	Val	Leu	Cys	Pro	Ser	Thr	Thr	850	855	860
Pro	Ser	Pro	Ala	Gln	Pro	Ala	Asp	Arg	Gly	Ser	Pro	Ala	Ala	Pro	Gly	865	870	875
Gln	Glu	Asp	Gly	Ala												885		

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<210> 53
 <211> 373
 <212> PRT
 <213> Homo sapiens

<400> 53

Met Leu Leu Gly Leu Ala Ala Met Glu Leu Lys Val Trp Val Asp Gly
 1 5 10 15
 Ile Gln Arg Val Val Cys Gly Val Ser Glu Gln Thr Thr Cys Gln Glu
 20 25 30
 Val Val Ile Ala Leu Ala Gln Ala Ile Gly Gln Thr Gly Arg Phe Val
 35 40 45
 Leu Val Gln Arg Leu Arg Glu Lys Glu Arg Gln Leu Leu Pro Gln Glu
 50 55 60
 Cys Pro Val Gly Ala Gln Ala Thr Cys Gly Gln Phe Ala Ser Asp Val
 65 70 75 80
 Gln Phe Val Leu Arg Arg Thr Gly Pro Ser Leu Ala Gly Arg Pro Ser
 85 90 95
 Ser Asp Ser Cys Pro Pro Pro Glu Arg Cys Leu Ile Arg Ala Ser Leu
 100 105 110
 Pro Val Lys Pro Arg Ala Ala Leu Gly Cys Glu Pro Arg Lys Thr Leu
 115 120 125
 Thr Pro Glu Pro Ala Pro Ser Leu Ser Arg Pro Gly Pro Ala Ala Pro
 130 135 140
 Val Thr Pro Thr Pro Gly Cys Cys Thr Asp Leu Arg Gly Leu Glu Leu
 145 150 155 160
 Arg Val Gln Arg Asn Ala Glu Glu Leu Gly His Glu Ala Phe Trp Glu
 165 170 175
 Gln Glu Leu Arg Arg Glu Gln Ala Arg Glu Arg Glu Gly Gln Ala Arg
 180 185 190
 Leu Gln Ala Leu Ser Ala Ala Thr Ala Glu His Ala Ala Arg Leu Gln
 195 200 205
 Ala Leu Asp Ala Gln Ala Arg Ala Leu Glu Ala Glu Leu Gln Leu Ala
 210 215 220
 Ala Glu Ala Pro Gly Pro Pro Ser Pro Met Ala Ser Ala Thr Glu Arg
 225 230 235 240
 Leu His Gln Asp Leu Ala Val Gln Glu Arg Gln Ser Ala Glu Val Gln
 245 250 255
 Gly Ser Leu Ala Leu Val Ser Arg Ala Leu Glu Ala Ala Glu Arg Ala
 260 265 270
 Leu Gln Ala Gln Ala Gln Glu Leu Glu Glu Leu Asn Arg Glu Leu Arg

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275

280

285

Gln Cys Asn Leu Gln Gln Phe Ile Gln Gln Thr Gly Ala Ala Leu Pro
290 295 300

Pro Pro Pro Arg Pro Asp Arg Gly Pro Pro Gly Thr Gln Gly Pro Leu
305 310 315 320

Pro Pro Ala Arg Glu Glu Ser Leu Leu Gly Ala Pro Ser Glu Ser His
325 330 335

Ala Gly Ala Gln Pro Arg Pro Arg Gly Gly Pro His Asp Ala Glu Leu
340 345 350

Leu Glu Val Ala Ala Ala Pro Ala Pro Glu Trp Cys Pro Leu Ala Ala
355 360 365

Gln Pro Gln Ala Leu
370

<210> 54

<211> 289

<212> PRT

<213> Homo sapiens

<400> 54

Met Glu Leu Leu Cys His Glu Val Asp Pro Val Arg Arg Ala Val Arg
1 5 10 15

Asp Arg Asn Leu Leu Arg Asp Asp Arg Val Leu Gln Asn Leu Leu Thr
20 25 30

Ile Glu Glu Arg Tyr Leu Pro Gln Cys Ser Tyr Phe Lys Cys Val Gln
35 40 45

Lys Asp Ile Gln Pro Tyr Met Arg Arg Met Val Ala Thr Trp Met Leu
50 55 60

Glu Val Cys Glu Glu Gln Lys Cys Glu Glu Glu Val Phe Pro Leu Ala
65 70 75 80

Met Asn Tyr Leu Asp Arg Phe Leu Ala Gly Val Pro Thr Pro Lys Ser
85 90 95

His Leu Gln Leu Leu Gly Ala Val Cys Met Phe Leu Ala Ser Lys Leu
100 105 110

Lys Glu Thr Ser Pro Leu Thr Ala Glu Lys Leu Cys Ile Tyr Thr Asp
115 120 125

Asn Ser Ile Lys Pro Gln Glu Leu Leu Glu Trp Glu Leu Val Val Leu
130 135 140

Gly Lys Leu Lys Trp Asn Leu Ala Ala Val Thr Pro His Asp Phe Ile
145 150 155 160

Glu His Ile Leu Arg Lys Leu Pro Gln Gln Arg Glu Lys Leu Ser Leu
165 170 175

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Ile Arg Lys His Ala Gln Thr Phe Ile Ala Leu Cys Ala Thr Asp Phe
180 185 190

Lys Phe Ala Met Tyr Pro Pro Ser Met Ile Ala Thr Gly Ser Val Gly
195 200 205

Ala Ala Ile Cys Gly Leu Gln Asp Glu Glu Val Ser Ser Leu Thr
210 215 220

Cys Asp Ala Leu Thr Glu Leu Leu Ala Lys Ile Thr Asn Thr Asp Val
225 230 235 240

Asp Cys Leu Lys Ala Cys Gln Glu Gln Ile Glu Ala Val Leu Leu Asn
245 250 255

Ser Leu Gln Gln Tyr Arg Gln Asp Gln Arg Asp Gly Ser Lys Ser Glu
260 265 270

Asp Glu Leu Asp Gln Ala Ser Thr Pro Thr Asp Val Arg Asp Ile Asp
275 280 285

Leu

<210> 55
<211> 693
<212> PRT
<213> Homo sapiens

<400> 55

Met Lys Glu Asn Tyr Cys Leu Gln Ala Ala Leu Val Cys Leu Gly Met
1 5 10 15

Leu Cys His Ser His Ala Phe Ala Pro Glu Arg Arg Gly His Leu Arg
20 25 30

Pro Ser Phe His Gly His His Glu Lys Gly Lys Glu Gly Gln Val Leu
35 40 45

Gln Arg Ser Lys Arg Gly Trp Val Trp Asn Gln Phe Phe Val Ile Glu
50 55 60

Glu Tyr Thr Gly Pro Asp Pro Val Leu Val Gly Arg Leu His Ser Asp
65 70 75 80

Ile Asp Ser Gly Asp Gly Asn Ile Lys Tyr Ile Leu Ser Gly Glu Gly
85 90 95

Ala Gly Thr Ile Phe Val Ile Asp Asp Lys Ser Gly Asn Ile His Ala
100 105 110

Thr Lys Thr Leu Asp Arg Glu Glu Arg Ala Gln Tyr Thr Leu Met Ala
115 120 125

Gln Ala Val Asp Arg Asp Thr Asn Arg Pro Leu Glu Pro Pro Ser Glu
130 135 140

Phe Ile Val Lys Val Gln Asp Ile Asn Asp Asn Pro Pro Glu Phe Leu
145 150 155 160

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His Glu Thr Tyr His Ala Asn Val Pro Glu Arg Ser Asn Val Gly Thr
165 170 175

Ser Val Ile Gln Val Thr Ala Ser Asp Ala Asp Asp Pro Thr Tyr Gly
180 185 190

Asn Ser Ala Lys Leu Val Tyr Ser Ile Leu Glu Gly Gln Pro Tyr Phe
195 200 205

Ser Val Glu Ala Gln Thr Gly Ile Ile Arg Thr Ala Leu Pro Asn Met
210 215 220

Asp Arg Glu Ala Lys Glu Glu Tyr His Val Val Ile Gln Ala Lys Asp
225 230 235 240

Met Gly Gly His Met Gly Gly Leu Ser Gly Thr Thr Lys Val Thr Ile
245 250 255

Thr Leu Thr Asp Val Asn Asp Asn Pro Pro Lys Phe Pro Gln Ser Val
260 265 270

Tyr Gln Ile Ser Val Ser Glu Ala Ala Val Pro Gly Glu Glu Val Gly
275 280 285

Arg Val Lys Ala Lys Asp Pro Asp Ile Gly Glu Asn Gly Leu Val Thr
290 295 300

Tyr Asn Ile Val Asp Gly Asp Gly Met Glu Ser Phe Glu Ile Thr Thr
305 310 315 320

Asp Tyr Glu Thr Gln Glu Gly Val Ile Lys Leu Lys Lys Pro Val Asp
325 330 335

Phe Glu Thr Lys Arg Ala Tyr Ser Leu Lys Val Glu Ala Ala Asn Val
340 345 350

His Ile Asp Pro Lys Phe Ile Ser Asn Gly Pro Phe Lys Asp Thr Val
355 360 365

Thr Val Lys Ile Ala Val Glu Asp Ala Asp Glu Pro Pro Met Phe Leu
370 375 380

Ala Pro Ser Tyr Ile His Glu Val Gln Glu Asn Ala Ala Ala Gly Thr
385 390 395 400

Val Val Gly Arg Val His Ala Lys Asp Pro Asp Ala Ala Asn Ser Pro
405 410 415

Ile Arg Tyr Ser Ile Asp Arg His Thr Asp Leu Asp Arg Phe Phe Thr
420 425 430

Ile Asn Pro Glu Asp Gly Phe Ile Lys Thr Thr Lys Pro Leu Asp Arg
435 440 445

Glu Glu Thr Ala Trp Leu Asn Ile Thr Val Phe Ala Ala Glu Ile His
450 455 460

Asn Arg His Gln Glu Ala Lys Val Pro Val Ala Ile Arg Val Leu Asp
465 470 475 480

0691949 03101

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<221>    UNSURE
<222>    (809)..(809)
<223>    Xaa = any amino acid
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<400> 56

Met Glu Pro Trp Ser Ser Arg Trp Lys Thr Lys Arg Trp Leu Trp Asp
1 5 10 15

Phe Thr Val Thr Thr Leu Ala Leu Thr Phe Leu Phe Gln Ala Arg Glu
20 25 30

Val Arg Gly Ala Ala Pro Val Asp Val Leu Lys Ala Leu Asp Phe His
35 40 45

Asn Ser Pro Glu Gly Ile Ser Lys Thr Thr Gly Phe Cys Thr Asn Arg
50 55 60

Lys Asn Ser Lys Gly Ser Asp Thr Ala Tyr Arg Val Ser Lys Gln Ala
65 70 75 80

Gln Leu Ser Ala Pro Thr Lys Gln Leu Phe Pro Gly Gly Thr Phe Pro
85 90 95

Glu Asp Phe Ser Ile Leu Phe Thr Val Lys Pro Lys Lys Gly Ile Gln
100 105 110

Ser Phe Leu Leu Ser Ile Tyr Asn Glu His Gly Ile Gln Gln Ile Gly
115 120 125

Val Glu Val Gly Arg Ser Pro Val Phe Leu Phe Glu Asp His Thr Gly
130 135 140

Lys Pro Ala Pro Glu Asp Tyr Pro Leu Phe Arg Thr Val Asn Ile Ala
145 150 155 160

Asp Gly Lys Trp His Arg Val Ala Ile Ser Val Glu Lys Lys Thr Val
165 170 175

Thr Met Ile Val Asp Cys Lys Lys Lys Thr Thr Lys Pro Leu Asp Arg
180 185 190

Ser Glu Arg Ala Ile Val Asp Thr Asn Gly Ile Thr Val Phe Gly Thr
195 200 205

Arg Ile Leu Asp Glu Glu Val Phe Glu Gly Asp Ile Gln Gln Phe Leu
210 215 220

Ile Thr Gly Asp Pro Lys Ala Ala Tyr Asp Tyr Cys Glu His Tyr Ser
225 230 235 240

Pro Asp Cys Asp Ser Ser Ala Pro Lys Ala Ala Gln Ala Gln Glu Pro
245 250 255

Gln Ile Asp Glu Tyr Ala Pro Glu Asp Ile Ile Glu Tyr Asp Tyr Glu
260 265 270

Tyr Gly Glu Ala Glu Tyr Lys Glu Ala Glu Ser Val Thr Glu Gly Pro
275 280 285

Thr Val Thr Glu Glu Thr Ile Ala Gln Thr Glu Ala Asn Ile Val Asp
290 295 300

Asp Phe Gln Glu Tyr Asn Tyr Gly Thr Met Glu Ser Tyr Gln Thr Glu

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305		310		315		320
Ala Pro Arg His Val Ser Gly Thr Asn Glu Pro Asn Pro Val Glu Glu						
		325		330		335
Ile Phe Thr Glu Glu Tyr Leu Thr Gly Glu Asp Tyr Asp Ser Gln Arg						
		340		345		350
Lys Asn Ser Glu Asp Thr Leu Tyr Glu Asn Lys Glu Ile Asp Gly Arg						
		355		360		365
Asp Ser Asp Leu Leu Val Asp Gly Asp Leu Gly Glu Tyr Asp Phe Tyr						
		370		375		380
Glu Tyr Lys Glu Tyr Glu Asp Lys Pro Thr Ser Pro Pro Asn Glu Glu						
		385		390		400
Phe Gly Pro Gly Val Pro Ala Glu Thr Asp Ile Thr Glu Thr Ser Ile						
		405		410		415
Asn Gly His Gly Ala Tyr Gly Glu Lys Gly Gln Lys Gly Glu Pro Ala						
		420		425		430
Val Val Glu Pro Gly Met Leu Val Glu Gly Pro Pro Gly Pro Ala Gly						
		435		440		445
Pro Ala Gly Ile Met Gly Pro Pro Gly Leu Gln Gly Pro Thr Gly Pro						
		450		455		460
Pro Gly Asp Pro Gly Asp Arg Gly Pro Pro Gly Arg Pro Gly Leu Pro						
		465		470		480
Gly Ala Asp Gly Leu Pro Gly Pro Pro Gly Thr Met Leu Met Leu Pro						
		485		490		495
Phe Arg Tyr Gly Gly Asp Gly Ser Lys Gly Pro Thr Ile Ser Ala Gln						
		500		505		510
Glu Ala Gln Ala Gln Ala Ile Leu Gln Gln Ala Arg Ile Ala Leu Arg						
		515		520		525
Gly Pro Pro Gly Pro Met Gly Leu Thr Gly Arg Pro Gly Pro Val Gly						
		530		535		540
Gly Pro Gly Ser Ser Gly Ala Lys Gly Glu Ser Gly Asp Pro Gly Pro						
		545		550		560
Gln Gly Pro Arg Gly Val Gln Gly Pro Pro Gly Pro Thr Gly Lys Pro						
		565		570		575
Gly Lys Arg Gly Arg Pro Gly Ala Asp Gly Gly Arg Gly Met Pro Gly						
		580		585		590
Glu Pro Gly Ala Lys Gly Asp Arg Gly Phe Asp Gly Leu Pro Gly Leu						
		595		600		605
Pro Gly Asp Lys Gly His Arg Gly Glu Arg Gly Pro Gln Gly Pro Pro						
		610		615		620
Gly Pro Pro Gly Asp Asp Gly Met Arg Gly Glu Asp Gly Glu Ile Gly						

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625	630	635	640
Pro Arg Gly Leu	Pro Gly Glu Ala Gly	Pro Arg Gly Leu Leu Gly	Pro
645	650	655	
Arg Gly Thr Pro Gly Ala	Pro Gly Gln Pro Gly Met Ala Gly	Val Asp	
660	665	670	
Gly Pro Pro Gly Pro Lys Gly	Asn Met Gly Pro Gln Gly	Glu Pro Gly	
675	680	685	
Pro Pro Gly Gln Gln Gly	Asn Pro Gly Pro Gln Gly	Leu Pro Gly Pro	
690	695	700	
Gln Gly Pro Ile Gly Pro Pro Gly Glu Lys	Gly Pro Gln Gly Lys Pro		
705	710	715	720
Gly Leu Ala Gly Leu Pro Gly Ala Asp	Gly Pro Pro Gly His Pro Gly		
725	730	735	
Lys Glu Gly Gln Ser Gly Glu Lys Gly	Ala Leu Gly Pro Pro Gly Pro		
740	745	750	
Gln Gly Pro Ile Gly Xaa Pro Gly Pro Arg Gly	Val Lys Gly Ala Asp		
755	760	765	
Gly Val Arg Gly Leu Lys Gly Ser Lys Gly	Glu Lys Gly Glu Asp Gly		
770	775	780	
Phe Pro Gly Phe Lys Gly Asp Met Gly Leu Lys	Gly Asp Arg Gly Glu		
785	790	795	800
Val Gly Gln Ile Gly Pro Arg Gly Xaa Asp	Gly Pro Glu Gly Pro Lys		
805	810	815	
Gly Arg Ala Gly Pro Thr Gly Asp Pro Gly Pro Ser	Gly Gln Ala Gly		
820	825	830	
Glu Lys Gly Lys Leu Gly Val Pro Gly Leu Pro Gly	Tyr Pro Gly Arg		
835	840	845	
Gln Gly Pro Lys Gly Ser Thr Gly Phe Pro Gly Phe	Pro Gly Ala Asn		
850	855	860	
Gly Glu Lys Gly Ala Arg Gly Val Ala Gly Lys	Pro Gly Pro Arg Gly		
865	870	875	880
Gln Arg Gly Pro Thr Gly Pro Arg Gly Ser Arg Gly	Ala Arg Gly Pro		
885	890	895	
Thr Gly Lys Pro Gly Pro Lys Gly Thr Ser Gly Gly	Asp Gly Pro Pro		
900	905	910	
Gly Pro Pro Gly Glu Arg Gly Pro Gln Gly Pro Gln	Gly Pro Val Gly		
915	920	925	
Phe Pro Gly Pro Lys Gly Pro Gly Pro Pro Gly	Arg Met Gly Cys		
930	935	940	
Pro Gly His Pro Gly Gln Arg Gly Glu Thr Gly Phe	Gln Gly Lys Thr		

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945		950		955		960
Gly Pro Pro Gly Pro Gly Gly Val Val Gly Pro Gln Gly Pro Thr Gly						
	965			970		975
Glu Thr Gly Pro Ile Gly Glu Arg Gly Tyr Pro Gly Pro Pro Gly Pro						
	980			985		990
Pro Gly Glu Gln Gly Leu Pro Gly Ala Ala Gly Lys Glu Gly Ala Lys						
	995			1000		1005
Gly Asp Pro Gly Pro Gln Gly Ile Ser Gly Lys Asp Gly Pro Ala						
	1010			1015		1020
Gly Leu Arg Gly Phe Pro Gly Glu Arg Gly Leu Pro Gly Ala Gln						
	1025			1030		1035
Gly Ala Pro Gly Leu Lys Gly Gly Glu Gly Pro Gln Gly Pro Pro						
	1040			1045		1050
Gly Pro Val Gly Ser Pro Gly Glu Arg Gly Ser Ala Gly Thr Ala						
	1055			1060		1065
Gly Pro Ile Gly Leu Arg Gly Arg Pro Gly Pro Gln Gly Pro Pro						
	1070			1075		1080
Gly Pro Ala Gly Glu Lys Gly Ala Pro Gly Glu Lys Gly Pro Gln						
	1085			1090		1095
Gly Pro Ala Gly Arg Asp Gly Val Gln Gly Pro Val Gly Leu Pro						
	1100			1105		1110
Gly Pro Ala Gly Pro Ala Gly Ser Pro Gly Glu Asp Gly Asp Lys						
	1115			1120		1125
Gly Glu Ile Gly Glu Pro Gly Gln Lys Gly Ser Lys Gly Gly Lys						
	1130			1135		1140
Gly Glu Asn Gly Pro Pro Gly Pro Pro Gly Leu Gln Gly Pro Val						
	1145			1150		1155
Gly Ala Pro Gly Ile Ala Gly Gly Asp Gly Glu Pro Gly Pro Arg						
	1160			1165		1170
Gly Gln Gln Gly Met Phe Gly Gln Lys Gly Asp Glu Gly Ala Arg						
	1175			1180		1185
Gly Phe Pro Gly Pro Pro Gly Pro Ile Gly Leu Gln Gly Leu Pro						
	1190			1195		1200
Gly Pro Pro Gly Glu Lys Gly Glu Asn Gly Asp Val Gly Pro Trp						
	1205			1210		1215
Gly Pro Pro Gly Pro Pro Gly Pro Arg Gly Pro Gln Gly Pro Asn						
	1220			1225		1230
Gly Ala Asp Gly Pro Gln Gly Pro Pro Gly Ser Val Gly Ser Val						
	1235			1240		1245
Gly Gly Val Gly Glu Lys Gly Glu Pro Gly Glu Ala Gly Asn Pro						

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1250		1255		1260
Gly Pro Pro Gly Glu Ala Gly	Val Gly Gly Pro Lys Gly Glu Arg			
1265	1270	1275		
Gly Glu Lys Gly Glu Ala Gly	Pro Pro Gly Ala Ala Gly Pro Pro			
1280	1285	1290		
Gly Ala Lys Gly Pro Pro Gly	Asp Asp Gly Pro Lys Gly Asn Pro			
1295	1300	1305		
Gly Pro Val Gly Phe Pro Gly	Asp Pro Gly Pro Pro Gly Glu Leu			
1310	1315	1320		
Gly Pro Ala Gly Gln Asp Gly	Val Gly Gly Asp Lys Gly Glu Asp			
1325	1330	1335		
Gly Asp Pro Gly Gln Pro Gly	Pro Pro Gly Pro Ser Gly Glu Ala			
1340	1345	1350		
Gly Pro Pro Gly Pro Pro Gly	Lys Arg Gly Pro Pro Gly Ala Ala			
1355	1360	1365		
Gly Ala Glu Gly Arg Gln Gly	Glu Lys Gly Ala Lys Gly Glu Ala			
1370	1375	1380		
Gly Ala Glu Gly Pro Pro Gly	Lys Thr Gly Pro Val Gly Pro Gln			
1385	1390	1395		
Gly Pro Ala Gly Lys Pro Gly	Pro Glu Gly Leu Arg Gly Ile Pro			
1400	1405	1410		
Gly Pro Val Gly Glu Gln Gly	Leu Pro Gly Ala Ala Gly Gln Asp			
1415	1420	1425		
Gly Pro Pro Gly Pro Met Gly	Pro Pro Gly Leu Pro Gly Leu Lys			
1430	1435	1440		
Gly Asp Pro Gly Ser Lys Gly	Glu Lys Gly His Pro Gly Leu Ile			
1445	1450	1455		
Gly Leu Ile Gly Pro Pro Gly	Glu Gln Gly Glu Lys Gly Asp Arg			
1460	1465	1470		
Gly Leu Pro Gly Thr Gln Gly	Ser Pro Gly Ala Lys Gly Asp Gly			
1475	1480	1485		
Gly Ile Pro Gly Pro Ala Gly	Pro Leu Gly Pro Pro Gly Pro Pro			
1490	1495	1500		
Gly Leu Pro Gly Pro Gln Gly	Pro Lys Gly Asn Lys Gly Ser Thr			
1505	1510	1515		
Gly Pro Ala Gly Gln Lys Gly	Asp Ser Gly Leu Pro Gly Pro Pro			
1520	1525	1530		
Gly Pro Pro Gly Pro Pro Gly	Glu Val Ile Gln Pro Leu Pro Ile			
1535	1540	1545		
Leu Ser Ser Lys Lys Thr Arg	Arg His Thr Glu Gly Met Gln Ala			

09919497-03304

1550		1555		1560
Asp Ala	Asp Asp Asn Ile	Leu	Asp Tyr Ser Asp	Gly Met Glu Glu
1565		1570		1575
Ile Phe	Gly Ser Leu Asn	Ser	Leu Lys Gln Asp	Ile Glu His Met
1580		1585		1590
Lys Phe	Pro Met Gly Thr	Gln	Thr Asn Pro Ala	Arg Thr Cys Lys
1595		1600		1605
Asp Leu	Gln Leu Ser His	Pro	Asp Phe Pro Asp	Gly Glu Tyr Trp
1610		1615		1620
Ile Asp	Pro Asn Gln Gly	Cys	Ser Gly Asp Ser	Phe Lys Val Tyr
1625		1630		1635
Cys Asn	Phe Thr Ser Gly	Gly	Glu Thr Cys Ile	Tyr Pro Asp Lys
1640		1645		1650
Lys Ser	Glu Gly Val Arg	Ile	Ser Ser Trp Pro	Lys Glu Lys Pro
1655		1660		1665
Gly Ser	Trp Phe Ser Glu	Phe	Lys Arg Gly Lys	Leu Leu Ser Tyr
1670		1675		1680
Leu Asp	Val Glu Gly Asn	Ser	Ile Asn Met Val	Gln Met Thr Phe
1685		1690		1695
Leu Lys	Leu Leu Thr Ala	Ser	Ala Arg Gln Asn	Phe Thr Tyr His
1700		1705		1710
Cys His	Gln Ser Ala Ala	Trp	Tyr Asp Val Ser	Ser Gly Ser Tyr
1715		1720		1725
Asp Lys	Ala Leu Arg Phe	Leu	Gly Ser Asn Asp	Glu Glu Met Ser
1730		1735		1740
Tyr Asp	Asn Asn Pro Phe	Ile	Lys Thr Leu Tyr	Asp Gly Cys Thr
1745		1750		1755
Ser Arg	Lys Gly Tyr Glu	Lys	Thr Val Ile Glu	Ile Asn Thr Pro
1760		1765		1770
Lys Ile	Asp Gln Val Pro	Ile	Val Asp Val Met	Ile Ser Asp Phe
1775		1780		1785
Gly Asp	Gln Asn Gln Lys	Phe	Gly Phe Glu Val	Gly Pro Val Cys
1790		1795		1800
Phe Leu	Gly			
1805				

<210> 57
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 <213> Homo sapiens
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Cys	Lys	Ala	Ala	Lys	Ala	Asp	Leu	Val	Phe	Met	Val	Asp	Gly	Ser	Trp	1	5	10	15
Ser	Ile	Gly	Asp	Glu	Asn	Phe	Asn	Lys	Ile	Ile	Ser	Phe	Leu	Tyr	Ser	20	25	30	
Thr	Val	Gly	Ala	Leu	Asn	Lys	Ile	Gly	Thr	Asp	Gly	Thr	Gln	Val	Ala	35	40	45	
Met	Val	Gln	Phe	Thr	Asp	Asp	Pro	Arg	Thr	Glu	Phe	Lys	Leu	Asn	Ala	50	55	60	
Tyr	Lys	Thr	Lys	Glu	Thr	Leu	Leu	Asp	Ala	Ile	Lys	His	Ile	Ser	Tyr	65	70	75	80
Lys	Gly	Gly	Asn	Thr	Lys	Thr	Gly	Lys	Ala	Ile	Lys	Tyr	Val	Arg	Asp	85	90	95	
Thr	Leu	Phe	Thr	Ala	Glu	Ser	Gly	Thr	Arg	Arg	Gly	Ile	Pro	Lys	Val	100	105	110	
Ile	Val	Val	Ile	Thr	Asp	Gly	Arg	Ser	Gln	Asp	Asp	Val	Asn	Lys	Ile	115	120	125	
Ser	Arg	Glu	Met	Gln	Leu	Asp	Gly	Tyr	Ser	Ile	Phe	Ala	Ile	Gly	Val	130	135	140	
Ala	Asp	Ala	Asp	Tyr	Ser	Glu	Leu	Val	Ser	Ile	Gly	Ser	Lys	Pro	Ser	145	150	155	160
Ala	Arg	His	Val	Phe	Phe	Val	Asp	Asp	Phe	Asp	Ala	Phe	Lys	Lys	Ile	165	170	175	
Glu	Asp	Glu	Leu	Ile	Thr	Phe	Val	Cys	Glu	Thr	Ala	Ser	Ala	Thr	Cys	180	185	190	
Pro	Val	Val	His	Lys	Asp	Gly	Ile	Asp	Leu	Ala	Gly	Phe	Lys	Met	Met	195	200	205	
Glu	Met	Phe	Gly	Leu	Val	Glu	Lys	Asp	Phe	Ser	Ser	Val	Glu	Gly	Val	210	215	220	
Ser	Met	Glu	Pro	Gly	Thr	Phe	Asn	Val	Phe	Pro	Cys	Tyr	Gln	Leu	His	225	230	235	240
Lys	Asp	Ala	Leu	Val	Ser	Gln	Pro	Thr	Arg	Tyr	Leu	His	Pro	Glu	Gly	245	250	255	
Leu	Pro	Ser	Asp	Tyr	Thr	Ile	Ser	Phe	Leu	Phe	Arg	Ile	Leu	Pro	Asp	260	265	270	
Thr	Pro	Gln	Glu	Pro	Phe	Ala	Leu	Trp	Glu	Ile	Leu	Asn	Lys	Asn	Ser	275	280	285	
Asp	Pro	Leu	Val	Gly	Val	Ile	Leu	Asp	Asn	Gly	Gly	Lys	Thr	Leu	Thr	290	295	300	
Tyr	Phe	Asn	Tyr	Asp	Gln	Ser	Gly	Asp	Phe	Gln	Thr	Val	Thr	Phe	Glu	305	310	315	320

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Gly	Pro	Glu	Ile	Arg	Lys	Ile	Phe	Tyr	Gly	Ser	Phe	His	Lys	Leu	His	325	330	335	
Ile	Val	Val	Ser	Glu	Thr	Leu	Val	Lys	Val	Val	Ile	Asp	Cys	Lys	Gln	340	345	350	
Val	Gly	Glu	Lys	Ala	Met	Asn	Ala	Ser	Ala	Asn	Ile	Thr	Ser	Asp	Gly	355	360	365	
Val	Glu	Val	Leu	Gly	Lys	Met	Val	Arg	Ser	Arg	Gly	Pro	Gly	Gly	Asn	370	375	380	
Ser	Ala	Pro	Phe	Gln	Leu	Gln	Met	Phe	Asp	Ile	Val	Cys	Ser	Thr	Ser	385	390	395	400
Trp	Ala	Asn	Thr	Asp	Lys	Cys	Cys	Glu	Leu	Pro	Gly	Leu	Arg	Asp	Asp	405	410	415	
Glu	Ser	Cys	Pro	Asp	Leu	Pro	His	Ser	Cys	Ser	Cys	Ser	Glu	Thr	Asn	420	425	430	
Glu	Val	Ala	Leu	Gly	Pro	Ala	Gly	Pro	Pro	Gly	Gly	Pro	Gly	Leu	Arg	435	440	445	
Gly	Pro	Lys	Gly	Gln	Gln	Gly	Glu	Pro	Gly	Pro	Lys	Gly	Pro	Asp	Gly	450	455	460	
Pro	Arg	Gly	Glu	Ile	Gly	Leu	Pro	Gly	Pro	Gln	Gly	Pro	Pro	Gly	Pro	465	470	475	480
Gln	Gly	Pro	Ser	Gly	Leu	Ser	Ile	Gln	Gly	Met	Pro	Gly	Met	Pro	Gly	485	490	495	
Glu	Lys	Gly	Glu	Lys	Gly	Asp	Thr	Gly	Leu	Pro	Gly	Pro	Gln	Gly	Ile	500	505	510	
Pro	Gly	Gly	Val	Gly	Ser	Pro	Gly	Arg	Asp	Gly	Ser	Pro	Gly	Gln	Arg	515	520	525	
Gly	Leu	Pro	Gly	Lys	Asp	Gly	Ser	Ser	Gly	Pro	Pro	Gly	Pro	Pro	Gly	530	535	540	
Pro	Ile	Gly	Ile	Pro	Gly	Thr	Pro	Gly	Val	Pro	Gly	Ile	Thr	Gly	Ser	545	550	555	560
Met	Gly	Pro	Gln	Gly	Ala	Leu	Gly	Pro	Pro	Gly	Val	Pro	Gly	Ala	Lys	565	570	575	
Gly	Glu	Arg	Gly	Glu	Arg	Gly	Asp	Leu	Gln	Ser	Gln	Ala	Met	Val	Arg	580	585	590	
Ser	Val	Ala	Arg	Gln	Val	Cys	Glu	Gln	Leu	Ile	Gln	Ser	His	Met	Ala	595	600	605	
Arg	Tyr	Thr	Ala	Ile	Leu	Asn	Gln	Ile	Pro	Ser	His	Ser	Ser	Ser	Ile	610	615	620	
Arg	Thr	Val	Gln	Gly	Pro	Pro	Gly	Glu	Pro	Gly	Arg	Pro	Gly	Ser	Pro	625	630	635	640

051919 0300

Gly Ala Pro Gly Glu Gln Gly Pro Pro Gly Thr Pro Gly Phe Pro Gly
645 650 655

Asn Ala Gly Val Pro Gly Thr Pro Gly Glu Arg Gly Leu Thr Gly Ile
660 665 670

Lys Gly Glu Lys Gly Asn Pro Gly Val Gly Thr Gln Gly Pro Arg Gly
675 680 685

Pro Pro Gly Pro Ala Gly Pro Ser Gly Glu Ser Arg Pro Gly Ser Pro
690 695 700

Gly Pro Pro Gly Ser Pro Gly Pro Arg Gly Pro Pro Gly His Leu Gly
705 710 715 720

Val Pro Gly Pro Gln Gly Pro Ser Gly Gln Pro Gly Tyr Cys Asp Pro
725 730 735

Ser Ser Cys Ser Ala Tyr Gly Val Arg Asp Leu Ile Pro Tyr Asn Asp
740 745 750

Tyr Gln His
755

<210> 58
<211> 543
<212> PRT
<213> Homo sapiens

<400> 58

Met Gly Thr Ser Leu Ser Pro Asn Asp Pro Trp Pro Leu Asn Pro Leu
1 5 10 15

Ser Ile Gln Gln Thr Thr Leu Leu Leu Leu Ser Val Leu Ala Thr
20 25 30

Val His Val Gly Gln Arg Leu Leu Arg Gln Arg Arg Arg Gln Leu Arg
35 40 45

Ser Ala Pro Pro Gly Pro Phe Ala Trp Pro Leu Ile Gly Asn Ala Ala
50 55 60

Ala Val Gly Gln Ala Ala His Leu Ser Phe Ala Arg Leu Ala Arg Arg
65 70 75 80

Tyr Gly Asp Val Phe Gln Ile Arg Leu Gly Ser Cys Pro Ile Val Val
85 90 95

Leu Asn Gly Glu Arg Ala Ile His Gln Ala Leu Val Gln Gln Gly Ser
100 105 110

Ala Phe Ala Asp Arg Pro Ala Phe Ala Ser Phe Arg Val Val Ser Gly
115 120 125

Gly Arg Ser Met Ala Phe Gly His Tyr Ser Glu His Trp Lys Val Gln
130 135 140

Arg Arg Ala Ala His Ser Met Met Arg Asn Phe Phe Thr Arg Gln Pro
145 150 155 160

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Phe Leu Phe Ile Ser Ile Leu Ala His Gln Cys Asp Phe Arg Ala Asn
485 490 495

Pro Asn Glu Pro Ala Lys Met Asn Phe Ser Tyr Gly Leu Thr Ile Lys
500 505 510

Pro Lys Ser Phe Lys Val Asn Val Thr Leu Arg Glu Ser Met Glu Leu
515 520 525

Leu Asp Ser Ala Val Gln Asn Leu Gln Ala Lys Glu Thr Cys Gln
530 535 540

<210> 59

<211> 767

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<213> Homo sapiens

<400> 59

Met Ser Gln Arg Pro Arg Ala Pro Arg Ser Ala Leu Trp Leu Leu Ala
1 5 10 15

Pro Pro Leu Leu Arg Trp Ala Pro Pro Leu Leu Thr Val Leu His Ser
20 25 30

Asp Leu Phe Gln Ala Leu Leu Asp Ile Leu Asp Tyr Tyr Glu Ala Ser
35 40 45

Leu Ser Glu Ser Gln Lys Tyr Arg Tyr Gln Asp Glu Asp Thr Pro Pro
50 55 60

Leu Glu His Ser Pro Ala His Leu Pro Asn Gln Ala Asn Ser Pro Pro
65 70 75 80

Val Ile Val Asn Thr Asp Thr Leu Glu Ala Pro Gly Tyr Glu Leu Gln
85 90 95

Val Asn Gly Thr Glu Gly Glu Met Glu Tyr Glu Glu Ile Thr Leu Glu
100 105 110

Arg Gly Asn Ser Gly Leu Gly Phe Ser Ile Ala Gly Gly Thr Asp Asn
115 120 125

Pro His Ile Gly Asp Asp Pro Ser Ile Phe Ile Thr Lys Ile Ile Pro
130 135 140

Gly Gly Ala Ala Ala Gln Asp Gly Arg Leu Arg Val Asn Asp Ser Ile
145 150 155 160

Leu Phe Val Asn Glu Val Asp Val Arg Glu Val Thr His Ser Ala Ala
165 170 175

Val Glu Ala Leu Lys Glu Ala Gly Ser Ile Val Arg Leu Tyr Val Met
180 185 190

Arg Arg Lys Pro Pro Ala Glu Lys Val Met Glu Ile Lys Leu Ile Lys
195 200 205

Gly Pro Lys Gly Leu Gly Phe Ser Ile Ala Gly Gly Val Gly Asn Gln

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210	215	220
His Ile Pro Gly Asp Asn Ser Ile Tyr Val Thr Lys Ile Ile Glu Gly 225 230 235 240		
Gly Ala Ala His Lys Asp Gly Arg Leu Gln Ile Gly Asp Lys Ile Leu 245 250 255		
Ala Val Asn Ser Val Gly Leu Glu Asp Val Met His Glu Asp Ala Val 260 265 270		
Ala Ala Leu Lys Asn Thr Tyr Asp Val Val Tyr Leu Lys Val Ala Lys 275 280 285		
Pro Ser Asn Ala Tyr Leu Ser Asp Ser Tyr Ala Pro Pro Asp Ile Thr 290 295 300		
Thr Ser Tyr Ser Gln His Leu Asp Asn Glu Ile Ser His Ser Ser Tyr 305 310 315 320		
Leu Gly Thr Asp Tyr Pro Thr Ala Met Thr Pro Thr Ser Pro Arg Arg 325 330 335		
Tyr Ser Pro Val Ala Lys Asp Leu Leu Gly Glu Glu Asp Ile Pro Arg 340 345 350		
Glu Pro Arg Arg Ile Val Ile His Arg Gly Ser Thr Gly Leu Gly Phe 355 360 365		
Asn Ile Val Gly Gly Glu Asp Gly Glu Gly Ile Phe Ile Ser Phe Ile 370 375 380		
Leu Ala Gly Gly Pro Ala Asp Leu Ser Gly Glu Leu Arg Lys Gly Asp 385 390 395 400		
Gln Ile Leu Ser Val Asn Gly Val Asp Leu Arg Asn Ala Ser His Glu 405 410 415		
Gln Ala Ala Ile Ala Leu Lys Asn Ala Gly Gln Thr Val Thr Ile Ile 420 425 430		
Ala Gln Tyr Lys Pro Glu Glu Tyr Ser Arg Phe Glu Ala Lys Ile His 435 440 445		
Asp Leu Arg Glu Gln Leu Met Asn Ser Ser Leu Gly Ser Gly Thr Ala 450 455 460		
Ser Leu Arg Ser Asn Pro Lys Arg Gly Phe Tyr Ile Arg Ala Leu Phe 465 470 475 480		
Asp Tyr Asp Lys Thr Lys Asp Cys Gly Phe Leu Ser Gln Ala Leu Ser 485 490 495		
Phe Arg Phe Gly Asp Val Leu His Val Ile Asp Ala Ser Asp Glu Glu 500 505 510		
Trp Trp Gln Ala Arg Arg Val His Ser Asp Ser Glu Thr Asp Asp Ile 515 520 525		
Gly Phe Ile Pro Ser Lys Arg Arg Val Glu Arg Arg Glu Trp Ser Arg		

093649-0340

530 535 540

Leu Lys Ala Lys Asp Trp Gly Ser Ser Ser Gly Ser Gln Gly Arg Glu
545 550 555 560

Asp Ser Val Leu Ser Tyr Glu Thr Val Thr Gln Met Glu Val His Tyr
565 570 575

Ala Arg Pro Ile Ile Ile Leu Gly Pro Thr Lys Asp Arg Ala Asn Asp
580 585 590

Asp Leu Leu Ser Glu Phe Pro Asp Lys Phe Gly Ser Cys Val Pro His
595 600 605

Thr Thr Arg Pro Lys Arg Glu Tyr Glu Ile Asp Gly Arg Asp Tyr His
610 615 620

Phe Val Ser Ser Arg Glu Lys Met Glu Lys Asp Ile Gln Ala His Lys
625 630 635 640

Phe Ile Glu Ala Gly Gln Tyr Asn Ser His Leu Tyr Gly Thr Ser Val
645 650 655

Gln Ser Val Arg Glu Val Ala Glu Gln Gly Lys His Cys Ile Leu Asp
660 665 670

Val Ser Ala Asn Ala Val Arg Arg Leu Gln Ala Ala His Leu His Pro
675 680 685

Ile Ala Ile Phe Ile Arg Pro Arg Ser Leu Glu Asn Val Leu Glu Ile
690 695 700

Asn Lys Arg Ile Thr Glu Glu Gln Ala Arg Lys Ala Phe Asp Arg Ala
705 710 715 720

Thr Lys Leu Glu Gln Glu Phe Thr Glu Cys Phe Ser Ala Ile Val Glu
725 730 735

Gly Asp Ser Phe Glu Glu Ile Tyr His Lys Val Lys Arg Val Ile Glu
740 745 750

Asp Leu Ser Gly Pro Tyr Ile Trp Val Pro Ala Arg Glu Arg Leu
755 760 765

<210> 60
<211> 367
<212> PRT
<213> Homo sapiens

<400> 60

Met Val Met Glu Val Gly Thr Leu Asp Ala Gly Gly Leu Arg Ala Leu
1 5 10 15

Leu Gly Glu Arg Ala Ala Gln Cys Leu Leu Leu Asp Cys Arg Ser Phe
20 25 30

Phe Ala Phe Asn Ala Gly His Ile Ala Gly Ser Val Asn Val Arg Phe
35 40 45

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Ser Thr Ile Val Arg Arg Arg Ala Lys Gly Ala Met Gly Leu Glu His
50 55 60

Ile Val Pro Asn Ala Glu Leu Arg Gly Arg Leu Leu Ala Gly Ala Tyr
65 70 75 80

His Ala Val Val Leu Leu Asp Glu Arg Ser Ala Ala Leu Asp Gly Ala
85 90 95

Lys Arg Asp Gly Thr Leu Ala Leu Ala Ala Gly Ala Leu Cys Arg Glu
100 105 110

Ala Arg Ala Ala Gln Val Phe Phe Leu Lys Gly Gly Tyr Glu Ala Phe
115 120 125

Ser Ala Ser Cys Pro Glu Leu Cys Ser Lys Gln Ser Thr Pro Met Gly
130 135 140

Leu Ser Leu Pro Leu Ser Thr Ser Val Pro Asp Ser Ala Glu Ser Gly
145 150 155 160

Cys Ser Ser Cys Ser Thr Pro Leu Tyr Asp Gln Gly Gly Pro Val Glu
165 170 175

Ile Leu Pro Phe Leu Tyr Leu Gly Ser Ala Tyr His Ala Ser Arg Lys
180 185 190

Asp Met Leu Asp Ala Leu Gly Ile Thr Ala Leu Ile Asn Val Ser Ala
195 200 205

Asn Cys Pro Asn His Phe Glu Gly His Tyr Gln Tyr Lys Ser Ile Pro
210 215 220

Val Glu Asp Asn His Lys Ala Asp Ile Ser Ser Trp Phe Asn Glu Ala
225 230 235 240

Ile Asp Phe Ile Asp Ser Ile Lys Asn Ala Gly Gly Arg Val Phe Val
245 250 255

His Cys Gln Ala Gly Ile Ser Arg Ser Ala Thr Ile Cys Leu Ala Tyr
260 265 270

Leu Met Arg Thr Asn Arg Val Lys Leu Asp Glu Ala Phe Glu Phe Val
275 280 285

Lys Gln Arg Arg Ser Ile Ile Ser Pro Asn Phe Ser Phe Met Gly Gln
290 295 300

Leu Leu Gln Phe Glu Ser Gln Val Leu Ala Pro His Cys Ser Ala Glu
305 310 315 320

Ala Gly Ser Pro Ala Met Ala Val Leu Asp Arg Gly Thr Ser Thr Thr
325 330 335

Thr Val Phe Asn Phe Pro Val Ser Ile Pro Val His Ser Thr Asn Ser
340 345 350

Ala Leu Ser Tyr Leu Gln Ser Pro Ile Thr Thr Ser Pro Ser Cys
355 360 365

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<400> 61

Met	Ala	Ala	Ala	Glu	Pro	Ala	Ser	Ser	Gly	Gln	Gln	Ala	Pro	Ala	Gly
1				5					10					15	
Gln	Gly	Gln	Gly	Gln	Arg	Pro	Pro	Pro	Gln	Pro	Pro	Gln	Ala	Gln	Ala
			20					25					30		
Pro	Gln	Pro	Pro	Pro	Pro	Pro	Gln	Leu	Gly	Gly	Ala	Gly	Gly	Gly	Ser
		35					40					45			
Ser	Arg	His	Glu	Lys	Ser	Leu	Gly	Leu	Leu	Thr	Thr	Lys	Phe	Val	Ser
	50					55					60				
Leu	Leu	Gln	Glu	Ala	Lys	Asp	Gly	Val	Leu	Asp	Leu	Lys	Ala	Ala	Ala
65					70					75					80
Asp	Thr	Leu	Ala	Val	Arg	Gln	Lys	Arg	Arg	Ile	Tyr	Asp	Ile	Thr	Asn
				85					90					95	
Val	Leu	Glu	Gly	Ile	Asp	Leu	Ile	Glu	Lys	Lys	Ser	Lys	Asn	Ser	Ile
			100					105					110		
Gln	Trp	Lys	Gly	Val	Gly	Ala	Gly	Cys	Asn	Thr	Lys	Glu	Val	Ile	Asp
		115					120					125			
Arg	Leu	Arg	Tyr	Leu	Lys	Ala	Glu	Ile	Glu	Asp	Leu	Glu	Leu	Lys	Glu
	130					135					140				
Arg	Glu	Leu	Asp	Gln	Gln	Lys	Leu	Trp	Leu	Gln	Gln	Ser	Ile	Lys	Asn
145					150					155					160
Val	Met	Asp	Asp	Ser	Ile	Asn	Asn	Arg	Phe	Ser	Tyr	Val	Thr	His	Glu
				165					170					175	
Asp	Ile	Cys	Asn	Cys	Phe	Asn	Gly	Asp	Thr	Leu	Leu	Ala	Ile	Gln	Ala
			180					185					190		
Pro	Ser	Gly	Thr	Gln	Leu	Glu	Val	Pro	Ile	Pro	Glu	Met	Gly	Gln	Asn
		195					200					205			
Gly	Gln	Lys	Lys	Tyr	Gln	Ile	Asn	Leu	Lys	Ser	His	Ser	Gly	Pro	Ile
	210					215					220				
His	Val	Leu	Leu	Ile	Asn	Lys	Glu	Ser	Ser	Ser	Ser	Lys	Pro	Val	Val
225					230					235					240
Phe	Pro	Val	Pro	Pro	Pro	Asp	Asp	Leu	Thr	Gln	Pro	Ser	Ser	Gln	Ser
				245					250					255	
Leu	Thr	Pro	Val	Thr	Pro	Gln	Lys	Ser	Ser	Met	Ala	Thr	Gln	Asn	Leu
			260					265					270		
Pro	Glu	Gln	His	Val	Ser	Glu	Arg	Ser	Gln	Ala	Leu	Gln	Gln	Thr	Ser
		275					280					285			

Ala Thr Asp Ile Ser Ser Gly Ser Ile Ser Gly Asp Ile Ile Asp Glu
290 295 300

Leu Met Ser Ser Asp Val Phe Pro Leu Leu Arg Leu Ser Pro Thr Pro
305 310 315 320

Ala Asp Asp Tyr Asn Phe Asn Leu Asp Asp Asn Glu Gly Val Cys Asp
325 330 335

Leu Phe Asp Val Gln Ile Leu Asn Tyr
340 345

<210> 62

<211> 427

<212> PRT

<213> Homo sapiens

<400> 62

Met Glu Thr Leu Cys Leu Arg Ala Ser Phe Trp Leu Ala Leu Val Gly
1 5 10 15

Cys Val Ile Ser Asp Asn Pro Glu Arg Tyr Ser Thr Asn Leu Ser Asn
20 25 30

His Val Asp Asp Phe Thr Thr Phe Arg Gly Thr Glu Leu Ser Phe Leu
35 40 45

Val Thr Thr His Gln Pro Thr Asn Leu Val Leu Pro Ser Asn Gly Ser
50 55 60

Met His Asn Tyr Cys Pro Gln Gln Thr Lys Ile Thr Ser Ala Phe Lys
65 70 75 80

Tyr Ile Asn Thr Val Ile Ser Cys Thr Ile Phe Ile Val Gly Met Val
85 90 95

Gly Asn Ala Thr Leu Leu Arg Ile Ile Tyr Gln Asn Lys Cys Met Arg
100 105 110

Asn Gly Pro Asn Ala Leu Ile Ala Ser Leu Ala Leu Gly Asp Leu Ile
115 120 125

Tyr Val Val Ile Asp Leu Pro Ile Asn Val Phe Lys Leu Leu Ala Gly
130 135 140

Arg Trp Pro Phe Asp His Asn Asp Phe Gly Val Phe Leu Cys Lys Leu
145 150 155 160

Phe Pro Phe Leu Gln Lys Ser Ser Val Gly Ile Thr Val Leu Asn Leu
165 170 175

Cys Ala Leu Ser Val Asp Arg Tyr Arg Ala Val Ala Ser Trp Ser Arg
180 185 190

Val Gln Gly Ile Gly Ile Pro Leu Val Thr Ala Ile Glu Ile Val Ser
195 200 205

Ile Trp Ile Leu Ser Phe Ile Leu Ala Ile Pro Glu Ala Ile Gly Phe

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210					215					220					
Val	Met	Val	Pro	Phe	Glu	Tyr	Arg	Gly	Glu	Gln	His	Lys	Thr	Cys	Met
225					230					235					240
Leu	Asn	Ala	Thr	Ser	Lys	Phe	Met	Glu	Phe	Tyr	Gln	Asp	Val	Lys	Asp
				245					250					255	
Trp	Trp	Leu	Phe	Gly	Phe	Tyr	Phe	Cys	Met	Pro	Leu	Val	Cys	Thr	Ala
			260					265					270		
Ile	Phe	Tyr	Thr	Leu	Met	Thr	Cys	Glu	Met	Leu	Asn	Arg	Arg	Asn	Gly
		275					280					285			
Ser	Leu	Arg	Ile	Ala	Leu	Ser	Glu	His	Leu	Lys	Gln	Arg	Arg	Glu	Val
	290					295					300				
Ala	Lys	Thr	Val	Phe	Cys	Leu	Val	Val	Ile	Phe	Ala	Leu	Cys	Trp	Phe
305					310					315					320
Pro	Leu	His	Leu	Ser	Arg	Ile	Leu	Lys	Lys	Thr	Val	Tyr	Asn	Glu	Met
				325					330					335	
Asp	Lys	Asn	Arg	Cys	Glu	Leu	Leu	Ser	Phe	Leu	Leu	Leu	Met	Asp	Tyr
			340					345					350		
Ile	Gly	Ile	Asn	Leu	Ala	Thr	Met	Asn	Ser	Cys	Ile	Asn	Pro	Ile	Ala
		355					360					365			
Leu	Tyr	Phe	Val	Ser	Lys	Lys	Phe	Lys	Asn	Cys	Phe	Gln	Ser	Cys	Leu
	370					375					380				
Cys	Cys	Cys	Cys	Tyr	Gln	Ser	Lys	Ser	Leu	Met	Thr	Ser	Val	Pro	Met
385					390					395					400
Asn	Gly	Thr	Ser	Ile	Gln	Trp	Lys	Asn	His	Asp	Gln	Asn	Asn	His	Asn
				405					410					415	
Thr	Asp	Arg	Ser	Ser	His	Lys	Asp	Ser	Met	Asn					
			420					425							

<210> 63
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 <212> PRT
 <213> Homo sapiens

<400> 63

Met	Glu	Arg	Leu	Gln	Lys	Gln	Pro	Leu	Thr	Ser	Pro	Gly	Ser	Val	Ser
1				5					10					15	
Pro	Ser	Arg	Asp	Ser	Ser	Val	Pro	Gly	Ser	Pro	Ser	Ser	Ile	Val	Ala
			20					25					30		
Lys	Met	Asp	Asn	Gln	Val	Leu	Gly	Tyr	Lys	Asp	Leu	Ala	Ala	Ile	Pro
		35					40					45			
Lys	Asp	Lys	Ala	Ile	Leu	Asp	Ile	Glu	Arg	Pro	Asp	Leu	Met	Ile	Tyr
	50					55					60				

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Glu Pro His Phe Thr Tyr Ser Leu Leu Glu His Val Glu Leu Pro Arg
 65 70 75 80
 Gln Arg Glu Arg Ser Leu Ser Pro Lys Ser Thr Ser Pro Pro Pro Ser
 85 90 95
 Pro Glu Val Trp Ala Asp Ser Arg Ser Pro Gly Ile Ile Ser Gln Ala
 100 105 110
 Ser Ala Pro Arg Thr Thr Gly Thr Pro Arg Thr Ser Leu Pro His Phe
 115 120 125
 His His Pro Glu Thr Ser Arg Pro Asp Ser Asn Ile Tyr Lys Lys Pro
 130 135 140
 Pro Ile Tyr Lys Gln Arg Glu Ser Val Gly Gly Ser Pro Gln Thr Lys
 145 150 155 160
 His Leu Ile Glu Asp Leu Ile Ile Glu Ser Ser Lys Phe Pro Ala Ala
 165 170 175
 Gln Pro Pro Asp Pro Asn Gln Pro Ala Lys Ile Glu Thr Asp Tyr Trp
 180 185 190
 Pro Cys Pro Pro Ser Leu Ala Val Val Glu Thr Glu Trp Arg Lys Arg
 195 200 205
 Lys Ala Ser Arg Arg Gly Ala Glu Glu Glu Glu Glu Glu Asp Asp
 210 215 220
 Asp Ser Gly Glu Glu Met Lys Ala Leu Arg Glu Arg Gln Arg Glu Glu
 225 230 235 240
 Leu Ser Lys Val Thr Ser Asn Leu Gly Lys Met Ile Leu Lys Glu Glu
 245 250 255
 Met Glu Lys Ser Leu Pro Ile Arg Arg Lys Thr Arg Ser Leu Pro Asp
 260 265 270
 Arg Thr Pro Phe His Thr Ser Leu His Gln Gly Thr Ser Lys Ser Ser
 275 280 285
 Ser Leu Pro Arg Tyr Gly Arg Thr Thr Leu Ser Arg Leu Gln Ser Thr
 290 295 300
 Glu Phe Ser Pro Ser Gly Ser Glu Thr Gly Ser Pro Gly Leu Gln Asn
 305 310 315 320
 Gly Glu Gly Gln Arg Gly Arg Met Asp Arg Gly Asn Ser Leu Pro Cys
 325 330 335
 Val Leu Glu Gln Lys Ile Tyr Pro Tyr Glu Met Leu Val Val Thr Asn
 340 345 350
 Lys Gly Arg Thr Lys Leu Pro Pro Gly Val Asp Arg Met Arg Leu Glu
 355 360 365
 Arg His Leu Ser Ala Glu Asp Phe Ser Arg Val Phe Ala Met Ser Pro
 370 375 380

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Lys Cys His Asn Pro Ser Leu Glu Val Glu Asp Leu Ser Leu Glu Asn
245 250 255

Tyr Val Val Leu Tyr Asp Ala Glu Leu Thr Phe Val Arg Gln Leu Glu
 580 585 590
 Ile Tyr Arg Ala Ser Arg Pro Gly Lys Pro Leu Arg Val Tyr Phe Leu
 595 600 605
 Ile Tyr Gly Gly Ser Thr Glu Glu Gln Arg Tyr Leu Thr Ala Leu Arg
 610 615 620
 Lys Glu Lys Glu Ala Phe Glu Lys Leu Ile Arg Glu Lys Ala Ser Met
 625 630 635 640
 Val Val Pro Glu Glu Arg Glu Gly Arg Asp Glu Thr Asn Leu Asp Leu
 645 650 655
 Val Arg Gly Thr Ala Ser Ala Asp Val Ser Thr Asp Thr Arg Lys Ala
 660 665 670
 Gly Gly Gln Glu Gln Asn Gly Thr Gln Gln Ser Ile Val Val Asp Met
 675 680 685
 Arg Glu Phe Arg Ser Glu Leu Pro Ser Leu Ile His Arg Arg Gly Ile
 690 695 700
 Asp Ile Glu Pro Val Thr Leu Glu Val Gly Asp Tyr Ile Leu Thr Pro
 705 710 715 720
 Glu Met Cys Val Glu Arg Lys Ser Ile Ser Asp Leu Ile Gly Ser Leu
 725 730 735
 Asn Asn Gly Arg Leu Tyr Ser Gln Cys Ile Ser Met Ser Arg Tyr Tyr
 740 745 750
 Lys Arg Pro Val Leu Leu Ile Glu Phe Asp Pro Ser Lys Pro Phe Ser
 755 760 765
 Leu Thr Ser Arg Gly Ala Leu Phe Gln Glu Ile Ser Ser Asn Asp Ile
 770 775 780
 Ser Ser Lys Leu Thr Leu Leu Thr Leu His Phe Pro Arg Leu Arg Ile
 785 790 795 800
 Leu Trp Cys Pro Ser Pro His Ala Thr Ala Glu Leu Phe Glu Glu Leu
 805 810 815
 Lys Gln Ser Lys Pro Gln Pro Asp Ala Ala Thr Ala Leu Ala Ile Thr
 820 825 830
 Ala Asp Ser Glu Thr Leu Pro Glu Ser Glu Lys Tyr Asn Pro Gly Pro
 835 840 845
 Gln Asp Phe Leu Leu Lys Met Pro Gly Val Asn Ala Lys Asn Cys Arg
 850 855 860
 Ser Leu Met His His Val Lys Asn Ile Ala Glu Leu Ala Ala Leu Ser
 865 870 875 880
 Gln Asp Glu Leu Thr Ser Ile Leu Gly Asn Ala Ala Asn Ala Lys Gln
 885 890 895

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Asp Gln Phe Leu Leu Asp Gly Gln Leu Leu Pro Asp Asn Phe Ile Ala

245	250	255
Ala Cys Thr Glu Lys Lys Ile Pro Val Val Phe Arg Leu Gln Glu Gly		
260	265	270
Tyr Asp His Ser Tyr Tyr Phe Ile Ala Thr Phe Ile Thr Asp His Ile		
275	280	285
Arg His His Ala Lys Tyr Leu Asn Ala		
290	295	
<210> 66		
<211> 756		
<212> PRT		
<213> Homo sapiens		
<400> 66		
Met Ser Pro Gln Lys Arg Val Lys Asn Val Gln Ala Gln Asn Arg Thr		
1	5	10
Ser Gln Gly Ser Ser Ser Phe Gln Thr Thr Leu Ser Ala Trp Lys Val		
20	25	30
Lys Gln Asp Pro Ser Asn Ser Lys Asn Ile Ser Lys His Gly Gln Asn		
35	40	45
Asn Pro Val Gly Asp Tyr Glu His Ala Asp Asp Gln Ala Glu Glu Asp		
50	55	60
Ala Leu Gln Met Ala Val Gly Tyr Phe Glu Lys Gly Pro Ile Lys Ala		
65	70	75
Ser Gln Asn Lys Asp Lys Thr Leu Glu Lys His Leu Lys Thr Val Glu		
85	90	95
Asn Val Ala Trp Lys Asn Gly Leu Ala Ser Glu Glu Ile Asp Ile Leu		
100	105	110
Leu Asn Ile Ala Leu Ser Gly Lys Phe Gly Asn Ala Val Asn Thr Arg		
115	120	125
Ile Leu Lys Cys Met Ile Pro Ala Thr Val Ile Ser Glu Asp Ser Val		
130	135	140
Val Lys Ala Val Ser Trp Leu Cys Val Gly Lys Cys Ser Gly Ser Thr		
145	150	155
Lys Val Leu Phe Tyr Arg Trp Leu Val Ala Met Phe Asp Phe Ile Asp		
165	170	175
Arg Lys Glu Gln Ile Asn Leu Leu Tyr Gly Phe Phe Phe Ala Ser Leu		
180	185	190
Gln Asp Asp Ala Leu Cys Pro Tyr Val Cys His Leu Leu Tyr Leu Leu		
195	200	205
Thr Lys Lys Glu Asn Val Lys Pro Phe Arg Val Arg Lys Leu Leu Asp		
210	215	220

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Leu Gln Ala Lys Met Gly Met Gln Pro His Leu Gln Ala Leu Leu Ser
 225 230 235 240
 Leu Tyr Lys Phe Phe Ala Pro Ala Leu Ile Ser Val Ser Leu Pro Val
 245 250 255
 Arg Lys Lys Ile Tyr Leu Gln Asn Ser Glu Asn Leu Trp Lys Thr Ala
 260 265 270
 Leu Leu Ala Val Lys Gln Arg Asn Arg Gly Pro Ser Pro Glu Pro Leu
 275 280 285
 Lys Leu Met Leu Gly Pro Ala Asn Val Arg Pro Leu Lys Arg Lys Trp
 290 295 300
 Asn Ser Leu Ser Val Ile Pro Val Leu Asn Ser Ser Ser Tyr Thr Lys
 305 310 315 320
 Glu Cys Gly Lys Lys Glu Met Ser Leu Ser Asp Cys Leu Asn Arg Ser
 325 330 335
 Gly Ser Phe Pro Leu Glu Gln Leu Gln Ser Phe Pro Gln Leu Leu Gln
 340 345 350
 Asn Ile His Cys Leu Glu Leu Pro Ser Gln Met Gly Ser Val Leu Asn
 355 360 365
 Asn Ser Leu Leu Leu His Tyr Ile Asn Cys Val Arg Asp Glu Pro Val
 370 375 380
 Leu Leu Arg Phe His Tyr Trp Leu Ser Gln Thr Leu Gln Glu Glu Cys
 385 390 395 400
 Ile Trp Tyr Lys Val Asn Asn Tyr Glu His Gly Lys Glu Phe Thr Asn
 405 410 415
 Phe Leu Asp Thr Ile Ile Arg Ala Glu Cys Phe Leu Gln Glu Gly Tyr
 420 425 430
 Tyr Ser Cys Glu Ala Phe Leu Tyr Lys Ser Leu Pro Leu Trp Asp Gly
 435 440 445
 Leu Ser Cys Arg Ser Gln Phe Leu Gln Leu Val Ser Trp Ile Pro Phe
 450 455 460
 Ser Ser Phe Ser Glu Val Lys Pro Leu Leu Phe Asp His Leu Ala Gln
 465 470 475 480
 Leu Phe Phe Thr Ser Thr Ile Tyr Phe Lys Cys Ser Val Leu Gln Ser
 485 490 495
 Leu Lys Glu Leu Leu Gln Asn Trp Leu Leu Trp Leu Ser Met Asp Ile
 500 505 510
 His Met Lys Pro Val Thr Asn Ser Pro Leu Glu Thr Thr Leu Gly Gly
 515 520 525
 Ser Met Asn Cys Val Ser Lys Leu Ile His Tyr Val Gly Trp Leu Ser
 530 535 540

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Leu Gln Lys Ser Pro Ser Lys Glu Pro His Phe Thr Asp Phe Glu Gly
50 55 60

Lys Thr Ser Phe Gly Met Ser Val Phe Asn Leu Ser Asn Ala Ile Met
 65 70 75 80
 Gly Ser Gly Ile Leu Gly Leu Ala Tyr Ala Met Ala Asn Thr Gly Ile
 85 90 95
 Ile Leu Phe Leu Phe Leu Leu Thr Ala Val Ala Leu Leu Ser Ser Tyr
 100 105 110
 Ser Ile His Leu Leu Leu Lys Ser Ser Gly Val Val Gly Ile Arg Ala
 115 120 125
 Tyr Glu Gln Leu Gly Tyr Arg Ala Phe Gly Thr Pro Gly Lys Leu Ala
 130 135 140
 Ala Ala Leu Ala Ile Thr Leu Gln Asn Ile Gly Ala Met Ser Ser Tyr
 145 150 155 160
 Leu Tyr Ile Ile Lys Ser Glu Leu Pro Leu Val Ile Gln Thr Phe Leu
 165 170 175
 Asn Leu Glu Glu Lys Thr Ser Asp Trp Tyr Met Asn Gly Asn Tyr Leu
 180 185 190
 Val Ile Leu Val Ser Val Thr Ile Ile Leu Pro Leu Ala Leu Met Arg
 195 200 205
 Gln Leu Gly Tyr Leu Gly Tyr Ser Ser Gly Phe Ser Leu Ser Cys Met
 210 215 220
 Val Phe Phe Leu Ile Ala Val Ile Tyr Lys Lys Phe His Val Pro Cys
 225 230 235 240
 Pro Leu Pro Pro Asn Phe Asn Asn Thr Thr Gly Asn Phe Ser His Val
 245 250 255
 Glu Ile Val Lys Glu Lys Val Gln Leu Gln Val Glu Pro Glu Ala Ser
 260 265 270
 Ala Phe Cys Thr Pro Ser Tyr Phe Thr Leu Asn Ser Gln Thr Ala Tyr
 275 280 285
 Thr Ile Pro Ile Met Ala Phe Ala Phe Val Cys His Pro Glu Val Leu
 290 295 300
 Pro Ile Tyr Thr Glu Leu Lys Asp Pro Ser Lys Lys Lys Met Gln His
 305 310 315 320
 Ile Ser Asn Leu Ser Ile Ala Val Met Tyr Ile Met Tyr Phe Leu Ala
 325 330 335
 Ala Leu Phe Gly Tyr Leu Thr Phe Tyr Asn Gly Val Glu Ser Glu Leu
 340 345 350
 Leu His Thr Tyr Ser Lys Val Asp Pro Phe Asp Val Leu Ile Leu Cys
 355 360 365
 Val Arg Val Ala Val Leu Thr Ala Val Thr Leu Thr Val Pro Ile Val
 370 375 380

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Leu Phe Pro Val Arg Arg Ala Ile Gln Gln Met Leu Phe Pro Asn Gln
385 390 395 400

Glu Phe Ser Trp Leu Arg His Val Leu Ile Ala Val Gly Leu Leu Thr
405 410 415

Cys Ile Asn Leu Leu Val Ile Phe Ala Pro Asn Ile Leu Gly Ile Phe
420 425 430

Gly Val Ile Gly Ala Thr Ser Ala Pro Phe Leu Ile Phe Ile Phe Pro
435 440 445

Ala Ile Phe Tyr Phe Arg Ile Met Pro Thr Glu Lys Glu Pro Ala Arg
450 455 460

Ser Thr Pro Lys Ile Leu Ala Leu Cys Phe Ala Met Leu Gly Phe Leu
465 470 475 480

Leu Met Thr Met Ser Leu Ser Phe Ile Ile Ile Asp Trp Ala Ser Gly
485 490 495

Thr Ser Arg His Gly Gly Asn His
500

<210> 68
<211> 145
<212> PRT
<213> Homo sapiens

<400> 68

Met Ala Thr Trp Ala Leu Leu Leu Leu Ala Ala Met Leu Leu Gly Asn
1 5 10 15

Pro Gly Leu Val Phe Ser Arg Leu Ser Pro Glu Tyr Tyr Asp Leu Ala
20 25 30

Arg Ala His Leu Arg Asp Glu Glu Lys Ser Cys Pro Cys Leu Ala Gln
35 40 45

Glu Gly Pro Gln Gly Asp Leu Leu Thr Lys Thr Gln Glu Leu Gly Arg
50 55 60

Asp Tyr Arg Thr Cys Leu Thr Ile Val Gln Lys Leu Lys Lys Met Val
65 70 75 80

Asp Lys Pro Thr Gln Arg Ser Val Ser Asn Ala Ala Thr Arg Val Cys
85 90 95

Arg Thr Gly Arg Ser Arg Trp Arg Asp Val Cys Arg Asn Phe Met Arg
100 105 110

Arg Tyr Gln Ser Arg Val Ile Gln Gly Leu Val Ala Gly Glu Thr Ala
115 120 125

Gln Gln Ile Cys Glu Asp Leu Arg Leu Cys Ile Pro Ser Thr Gly Pro
130 135 140

Leu

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<210> 69
<211> 128
<212> PRT
<213> Homo sapiens
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Met Trp Ser Thr Arg Ser Pro Asn Ser Thr Ala Trp Pro Leu Ser Leu
1 5 10 15

Thr Ile Ala Glu Pro Asp Pro Gly Met Ser Gly Trp Pro Asp Gly Arg
35 40 45

Val Ile Ala Ala Val Ala Ile Val Leu Val Ser Leu Leu Phe Val Met
65 70 75 80

Lys Gly Thr Glu Phe Ala Glu Ser Ala Asp Ala Ala Leu Gln Gly Asp
100 105 110

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<210> 70
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<212> PRT
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Met Ala Thr Met Ile Pro Pro Val Lys Leu Lys Trp Leu Glu His Leu
1 5 10 15

Gly Val Ala Val Leu Tyr Ser Lys Leu Val Ser Asn Lys Glu Val Val
35 40 45

Pro Leu Pro Gln Gln Val Leu Cys Leu Lys Gly Pro Gln Leu Pro Asp
50 55 60

Phe Glu Arg Glu Ser Leu Ser Ser Asp Glu Gln Asp His Tyr Leu Asp
65 70 75 80

Ala Leu Leu Ser Ser Gln Leu Ala Leu Ala Lys Met Val Cys Ser Asp
85 90 95

Ser Pro Phe Ala Gly Ala Leu Arg Lys Arg Leu Leu Val Leu Gln Arg
100 105 110

Val Phe Tyr Ala Leu Ser Asn Lys Tyr His Asp Lys Gly Lys Val Lys
115 120 125

Gln Gln Gln His Ser Pro Glu Ser Ser Ser Gly Ser Ala Asp Val His
130 135 140

Ser Val Ser Glu Arg Pro Arg Ser Ser Thr Asp Ala Leu Ile Glu Met
145 150 155 160

Gly Val Arg Thr Gly Leu Ser Leu Leu Phe Ala Leu Leu Arg Gln Ser
165 170 175

Trp Met Met Pro Val Ser Gly Pro Gly Leu Ser Leu Cys Asn Asp Val
180 185 190

Ile His Thr Ala Ile Glu Val Val Ser Ser Leu Pro Pro Leu Ser Leu
195 200 205

Ala Asn Glu Ser Lys Ile Pro Pro Met Gly Leu Asp Cys Leu Ser Gln
210 215 220

Val Thr Thr Phe Leu Lys Gly Val Thr Ile Pro Asn Ser Gly Ala Asp
225 230 235 240

Thr Leu Gly Arg Arg Leu Ala Ser Glu Leu Leu Leu Gly Leu Ala Ala
245 250 255

Gln Arg Gly Ser Leu Arg Tyr Leu Leu Glu Trp Ile Glu Met Ala Leu
260 265 270

Gly Ala Ser Ala Val Val His Thr Met Glu Lys Gly Lys Leu Leu Ser
275 280 285

Ser Gln Glu Gly Met Ile Ser Phe Asp Cys Phe Met Thr Ile Leu Met
290 295 300

Gln Met Arg Arg Ser Leu Gly Ser Ser Ala Asp Arg Ser Gln Trp Arg
305 310 315 320

Glu Pro Thr Arg Thr Ser Asp Gly Leu Cys Ser Leu Tyr Glu Ala Ala
325 330 335

Leu Cys Leu Phe Glu Glu Val Cys Arg Met Ala Ser Asp Tyr Ser Arg
340 345 350

Thr Cys Ala Ser Pro Asp Ser Ile Gln Thr Gly Asp Ala Pro Ile Val
355 360 365

Ser Glu Thr Cys Glu Val Tyr Val Trp Gly Ser Asn Ser Ser His Gln
370 375 380

Leu Val Glu Gly Thr Gln Glu Lys Ile Leu Gln Pro Lys Leu Ala Pro
385 390 395 400

Ser Phe Ser Asp Ala Gln Thr Ile Glu Ala Gly Gln Tyr Cys Thr Phe
405 410 415

Val Ile Ser Thr Asp Gly Ser Val Arg Ala Cys Gly Lys Gly Ser Tyr
420 425 430

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Gly	Arg	Leu	Gly	Leu	Gly	Asp	Ser	Asn	Asn	Gln	Ser	Thr	Leu	Lys	Lys	
		435						440								445
Leu	Thr	Phe	Glu	Pro	His	Arg	Ser	Ile	Lys	Lys	Val	Ser	Ser	Ser	Ser	Lys
	450					455					460					
Gly	Ser	Asp	Gly	His	Thr	Leu	Ala	Phe	Thr	Thr	Glu	Gly	Glu	Val	Phe	
465					470					475					480	
Ser	Trp	Gly	Asp	Gly	Asp	Tyr	Gly	Lys	Leu	Gly	His	Gly	Asn	Ser	Ser	
				485					490					495		
Thr	Gln	Lys	Tyr	Pro	Lys	Leu	Ile	Gln	Gly	Pro	Leu	Gln	Gly	Lys	Val	
			500					505					510			
Val	Val	Cys	Val	Ser	Ala	Gly	Tyr	Arg	His	Ser	Ala	Ala	Val	Thr	Glu	
		515					520					525				
Asp	Gly	Glu	Leu	Tyr	Thr	Trp	Gly	Glu	Gly	Asp	Phe	Gly	Arg	Leu	Gly	
	530					535					540					
His	Gly	Asp	Ser	Asn	Ser	Arg	Asn	Ile	Pro	Thr	Leu	Val	Lys	Asp	Ile	
545					550					555					560	
Ser	Asn	Val	Gly	Glu	Val	Ser	Cys	Gly	Ser	Ser	His	Thr	Ile	Ala	Leu	
				565					570					575		
Ser	Lys	Asp	Gly	Arg	Thr	Val	Trp	Ser	Phe	Gly	Gly	Gly	Asp	Asn	Gly	
			580					585					590			
Lys	Leu	Gly	His	Gly	Asp	Thr	Asn	Arg	Val	Tyr	Lys	Pro	Lys	Val	Ile	
		595					600					605				
Glu	Ala	Leu	Gln	Gly	Met	Phe	Ile	Arg	Lys	Val	Cys	Ala	Gly	Ser	Gln	
	610					615					620					
Ser	Ser	Leu	Ala	Leu	Thr	Ser	Thr	Gly	Gln	Val	Tyr	Ala	Trp	Gly	Cys	
625					630					635					640	
Gly	Ala	Cys	Leu	Gly	Cys	Gly	Ser	Ser	Glu	Ala	Thr	Ala	Leu	Arg	Pro	
				645					650					655		
Lys	Leu	Ile	Glu	Glu	Leu	Ala	Ala	Thr	Arg	Ile	Val	Asp	Val	Ser	Ile	
			660					665					670			
Gly	Asp	Ser	His	Cys	Leu	Ala	Leu	Ser	His	Asp	Asn	Glu	Val	Tyr	Ala	
		675					680					685				
Trp	Gly	Asn	Asn	Ser	Met	Gly	Gln	Cys	Gly	Gln	Gly	Asn	Ser	Thr	Gly	
	690					695					700					
Pro	Ile	Thr	Lys	Pro	Lys	Lys	Val	Ser	Gly	Leu	Asp	Gly	Ile	Ala	Ile	
705					710					715					720	
Gln	Gln	Ile	Ser	Ala	Gly	Thr	Ser	His	Ser	Leu	Ala	Trp	Thr	Ala	Leu	
				725					730					735		
Pro	Arg	Asp	Arg	Gln	Val	Val	Ala	Trp	His	Arg	Pro	Tyr	Cys	Val	Asp	
			740					745					750			

Leu	Glu	Glu	Ser	Thr	Phe	Ser	His	Leu	Arg	Ser	Phe	Leu	Glu	Arg	Tyr	755	760	765
Cys	Asp	Lys	Ile	Asn	Ser	Glu	Ile	Pro	Pro	Leu	Pro	Phe	Pro	Ser	Ser	770	775	780
Arg	Glu	His	His	Ser	Phe	Leu	Lys	Leu	Cys	Leu	Lys	Leu	Leu	Ser	Asn	785	790	795
His	Leu	Ala	Leu	Ala	Leu	Ala	Gly	Gly	Val	Ala	Thr	Ser	Ile	Leu	Gly	805	810	815
Arg	Gln	Ala	Gly	Pro	Leu	Arg	Asn	Leu	Leu	Phe	Arg	Leu	Met	Asp	Ser	820	825	830
Thr	Val	Pro	Asp	Glu	Ile	Gln	Glu	Val	Val	Ile	Glu	Thr	Leu	Ser	Val	835	840	845
Gly	Ala	Thr	Met	Leu	Leu	Pro	Pro	Leu	Arg	Glu	Arg	Met	Glu	Leu	Leu	850	855	860
His	Ser	Leu	Leu	Pro	Gln	Gly	Pro	Asp	Arg	Trp	Glu	Ser	Leu	Ser	Lys	865	870	875
Gly	Gln	Arg	Met	Gln	Leu	Asp	Ile	Ile	Leu	Thr	Ser	Leu	Gln	Asp	His	885	890	895
Thr	His	Val	Ala	Ser	Leu	Leu	Gly	Tyr	Ser	Ser	Pro	Ser	Asp	Ala	Ala	900	905	910
Asp	Leu	Ser	Ser	Val	Cys	Thr	Gly	Tyr	Gly	Asn	Leu	Ser	Asp	Gln	Pro	915	920	925
Tyr	Gly	Thr	Gln	Ser	Cys	His	Pro	Asp	Thr	His	Leu	Ala	Glu	Ile	Leu	930	935	940
Met	Lys	Thr	Leu	Leu	Arg	Asn	Leu	Gly	Phe	Tyr	Thr	Asp	Gln	Ala	Phe	945	950	955
Gly	Glu	Leu	Glu	Lys	Asn	Ser	Asp	Lys	Phe	Leu	Leu	Gly	Thr	Ser	Ser	965	970	975
Ser	Glu	Asn	Ser	Gln	Pro	Ala	His	Leu	His	Glu	Leu	Leu	Cys	Ser	Leu	980	985	990
Gln	Lys	Gln	Leu	Leu	Ala	Phe	Cys	His	Ile	Asn	Asn	Ile	Ser	Glu	Asn	995	1000	1005
Ser	Ser	Ser	Val	Ala	Leu	Leu	His	Lys	His	Leu	Gln	Leu	Leu	Leu		1010	1015	1020
Pro	His	Ala	Thr	Asp	Ile	Tyr	Ser	Arg	Ser	Ala	Asn	Leu	Leu	Lys		1025	1030	1035
Glu	Ser	Pro	Trp	Asn	Gly	Ser	Val	Gly	Glu	Lys	Leu	Arg	Asp	Val		1040	1045	1050
Ile	Tyr	Val	Ser	Ala	Ala	Gly	Ser	Met	Leu	Cys	Gln	Ile	Val	Asn		1055	1060	1065

Ser	Leu	Leu	Leu	Leu	Pro	Val	Ser	Val	Ala	Arg	Pro	Leu	Leu	Ser
1070						1075					1080			
Tyr	Leu	Leu	Asp	Leu	Leu	Pro	Pro	Leu	Asp	Cys	Leu	Asn	Arg	Leu
1085						1090					1095			
Leu	Pro	Ala	Ala	Asp	Leu	Leu	Glu	Asp	Gln	Glu	Leu	Gln	Trp	Pro
1100						1105					1110			
Leu	His	Gly	Gly	Pro	Glu	Leu	Ile	Asp	Pro	Ala	Gly	Leu	Pro	Leu
1115						1120					1125			
Pro	Gln	Pro	Ala	Gln	Ser	Trp	Val	Trp	Leu	Val	Asp	Leu	Glu	Arg
1130						1135					1140			
Thr	Ile	Ala	Leu	Leu	Ile	Gly	Arg	Cys	Leu	Gly	Gly	Met	Leu	Gln
1145						1150					1155			
Gly	Ser	Pro	Val	Ser	Pro	Glu	Glu	Gln	Asp	Thr	Ala	Tyr	Trp	Met
1160						1165					1170			
Lys	Thr	Pro	Leu	Phe	Ser	Asp	Gly	Val	Glu	Met	Asp	Thr	Pro	Gln
1175						1180					1185			
Leu	Asp	Lys	Cys	Met	Ser	Cys	Leu	Leu	Glu	Val	Ala	Leu	Ser	Gly
1190						1195					1200			
Asn	Glu	Glu	Gln	Lys	Pro	Phe	Asp	Tyr	Lys	Leu	Arg	Pro	Glu	Ile
1205						1210					1215			
Ala	Val	Tyr	Val	Asp	Leu	Ala	Leu	Gly	Cys	Ser	Lys	Glu	Pro	Ala
1220						1225					1230			
Arg	Ser	Leu	Trp	Ile	Ser	Met	Gln	Asp	Tyr	Ala	Val	Ser	Lys	Asp
1235						1240					1245			
Trp	Asp	Ser	Ala	Thr	Leu	Ser	Asn	Glu	Ser	Leu	Leu	Asp	Thr	Val
1250						1255					1260			
Ser	Arg	Phe	Val	Leu	Ala	Ala	Leu	Leu	Lys	His	Thr	Asn	Leu	Leu
1265						1270					1275			
Ser	Gln	Ala	Cys	Gly	Glu	Ser	Arg	Tyr	Gln	Pro	Gly	Lys	His	Leu
1280						1285					1290			
Ser	Glu	Val	Tyr	Arg	Cys	Val	Tyr	Lys	Val	Arg	Ser	Arg	Leu	Leu
1295						1300					1305			
Ala	Cys	Lys	Asn	Leu	Glu	Leu	Ile	Gln	Thr	Arg	Ser	Ser	Ser	Arg
1310						1315					1320			
Asp	Arg	Trp	Ile	Ser	Glu	Asn	Gln	Asp	Ser	Ala	Asp	Val	Asp	Pro
1325						1330					1335			
Gln	Glu	His	Ser	Phe	Thr	Arg	Thr	Ile	Asp	Glu	Glu	Ala	Glu	Met
1340						1345					1350			
Glu	Glu	Gln	Ala	Glu	Arg	Asp	Arg	Glu	Glu	Gly	His	Pro	Glu	Pro
1355						1360					1365			

Glu Asp	Glu Glu Glu Glu	Arg	Glu His Glu Val	Met	Thr Ala Gly
1370		1375		1380	
Lys Ile	Phe Gln Cys Phe	Leu	Ser Ala Arg Glu	Val	Ala Arg Ser
1385		1390		1395	
Arg Asp	Arg Asp Arg Met	Asn	Ser Gly Ala Gly	Ser	Gly Ala Arg
1400		1405		1410	
Ala Asp	Asp Pro Pro Pro	Gln	Ser Gln Gln Glu	Arg	Arg Val Ser
1415		1420		1425	
Thr Asp	Leu Pro Glu Gly	Gln	Asp Val Tyr Thr	Ala	Ala Cys Asn
1430		1435		1440	
Ser Val	Ile His Arg Cys	Ala	Leu Leu Ile Leu	Gly	Val Ser Pro
1445		1450		1455	
Val Ile	Asp Glu Leu Gln	Lys	Arg Arg Glu Glu	Gly	Gln Leu Gln
1460		1465		1470	
Gln Pro	Ser Thr Ser Ala	Ser	Glu Gly Gly Gly	Leu	Met Thr Arg
1475		1480		1485	
Ser Glu	Ser Leu Thr Ala	Glu	Ser Arg Leu Val	His	Thr Ser Pro
1490		1495		1500	
Asn Tyr	Arg Leu Ile Lys	Ser	Arg Ser Glu Ser	Asp	Leu Ser Gln
1505		1510		1515	
Pro Glu	Ser Asp Glu Glu	Gly	Tyr Ala Leu Ser	Gly	Arg Gln Asn
1520		1525		1530	
Val Asp	Leu Asp Leu Ala	Ala	Ser His Arg Lys	Arg	Gly Pro Met
1535		1540		1545	
His Ser	Gln Leu Glu Ser	Leu	Ser Asp Ser Trp	Ala	Arg Leu Lys
1550		1555		1560	
His Ser	Arg Asp Trp Leu	Cys	Asn Ser Ser Tyr	Ser	Phe Glu Ser
1565		1570		1575	
Asp Phe	Asp Leu Thr Lys	Ser	Leu Gly Val His	Thr	Leu Ile Glu
1580		1585		1590	
Asn Val	Val Ser Phe Val	Ser	Gly Asp Val Gly	Asn	Ala Pro Gly
1595		1600		1605	
Phe Lys	Glu Pro Glu Glu	Ser	Met Ser Thr Ser	Pro	Gln Ala Ser
1610		1615		1620	
Ile Ile	Ala Met Glu Gln	Gln	Gln Leu Arg Ala	Glu	Leu Arg Leu
1625		1630		1635	
Glu Ala	Leu His Gln Ile	Leu	Val Leu Leu Ser	Gly	Met Glu Glu
1640		1645		1650	
Lys Gly	Ser Ile Ser Leu	Ala	Gly Ser Arg Leu	Ser	Ser Gly Phe
1655		1660		1665	

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Gln Ser	Ser Thr	Leu Leu	Thr	Ser Val	Arg Leu	Gln	Phe Leu	Ala	
1670			1675			1680			
Gly Cys	Phe Gly	Leu Gly	Thr	Val Gly	His Thr	Gly	Ala Lys	Gly	
1685			1690			1695			
Glu Ser	Gly Arg	Leu His	His	Tyr Gln	Asp Gly	Ile	Arg Ala	Ala	
1700			1705			1710			
Lys Arg	Asn Ile	Gln Ile	Glu	Ile Gln	Val Ala	Val	His Lys	Ile	
1715			1720			1725			
Tyr Gln	Gln Leu	Ser Ala	Thr	Leu Glu	Arg Ala	Leu	Gln Ala	Asn	
1730			1735			1740			
Lys His	His Ile	Glu Ala	Gln	Gln Arg	Leu Leu	Leu	Val Thr	Val	
1745			1750			1755			
Phe Ala	Leu Ser	Val His	Tyr	Gln Pro	Val Asp	Val	Ser Leu	Ala	
1760			1765			1770			
Ile Ser	Thr Gly	Leu Leu	Asn	Val Leu	Ser Gln	Leu	Cys Gly	Thr	
1775			1780			1785			
Asp Thr	Met Leu	Gly Gln	Pro	Leu Gln	Leu Leu	Pro	Lys Thr	Gly	
1790			1795			1800			
Val Ser	Gln Leu	Ser Thr	Ala	Leu Lys	Val Ala	Ser	Thr Arg	Leu	
1805			1810			1815			
Leu Gln	Ile Leu	Ala Ile	Thr	Thr Gly	Thr Tyr	Ala	Asp Lys	Leu	
1820			1825			1830			
Ser Pro	Lys Val	Val Gln	Ser	Leu Leu	Asp Leu	Leu	Cys Ser	Gln	
1835			1840			1845			
Leu Lys	Asn Leu	Leu Ser	Gln	Thr Gly	Val Leu	His	Met Ala	Ser	
1850			1855			1860			
Phe Gly	Glu Gly	Glu Gln	Glu	Asp Gly	Glu Glu	Glu	Glu Lys	Lys	
1865			1870			1875			
Val Asp	Ser Ser	Gly Glu	Thr	Glu Lys	Lys Asp	Phe	Arg Ala	Ala	
1880			1885			1890			
Leu Arg	Lys Gln	His Ala	Ala	Glu Leu	His Leu	Gly	Asp Phe	Leu	
1895			1900			1905			
Val Phe	Leu Arg	Arg Val	Val	Ser Ser	Lys Ala	Ile	Gln Ser	Lys	
1910			1915			1920			
Met Ala	Ser Pro	Lys Trp	Thr	Glu Val	Leu Leu	Asn	Ile Ala	Ser	
1925			1930			1935			
Gln Lys	Cys Ser	Ser Gly	Ile	Pro Leu	Val Gly	Asn	Leu Arg	Thr	
1940			1945			1950			
Arg Leu	Leu Ala	Leu His	Val	Leu Glu	Ala Val	Leu	Pro Ala	Cys	
1955			1960			1965			

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Glu	Ser	Gly	Val	Glu	Asp	Asp	Gln	Met	Ala	Gln	Ile	Val	Glu	Arg
1970						1975					1980			
Leu	Phe	Ser	Leu	Leu	Ser	Asp	Cys	Met	Trp	Glu	Thr	Pro	Ile	Ala
1985						1990					1995			
Gln	Ala	Lys	His	Ala	Ile	Gln	Ile	Lys	Glu	Lys	Glu	Gln	Glu	Ile
2000						2005					2010			
Lys	Leu	Gln	Lys	Gln	Gly	Glu	Leu	Glu	Glu	Glu	Asp	Glu	Asn	Leu
2015						2020					2025			
Pro	Ile	Gln	Glu	Val	Ser	Phe	Asp	Pro	Glu	Lys	Ala	Gln	Cys	Cys
2030						2035					2040			
Leu	Val	Glu	Asn	Gly	Gln	Ile	Leu	Thr	His	Gly	Ser	Gly	Gly	Lys
2045						2050					2055			
Gly	Tyr	Gly	Leu	Ala	Ser	Thr	Gly	Val	Thr	Ser	Gly	Cys	Tyr	Gln
2060						2065					2070			
Trp	Lys	Phe	Tyr	Ile	Val	Lys	Glu	Asn	Arg	Gly	Asn	Glu	Gly	Thr
2075						2080					2085			
Cys	Val	Gly	Val	Ser	Arg	Trp	Pro	Val	His	Asp	Phe	Asn	His	Arg
2090						2095					2100			
Thr	Thr	Ser	Asp	Met	Trp	Leu	Tyr	Arg	Ala	Tyr	Ser	Gly	Asn	Leu
2105						2110					2115			
Tyr	His	Asn	Gly	Glu	Gln	Thr	Leu	Thr	Leu	Ser	Ser	Phe	Thr	Gln
2120						2125					2130			
Gly	Asp	Phe	Ile	Thr	Cys	Val	Leu	Asp	Met	Glu	Ala	Arg	Thr	Ile
2135						2140					2145			
Ser	Phe	Gly	Lys	Asn	Gly	Glu	Glu	Pro	Lys	Leu	Ala	Phe	Glu	Asp
2150						2155					2160			
Val	Asp	Ala	Ala	Glu	Leu	Tyr	Pro	Cys	Val	Met	Phe	Tyr	Ser	Ser
2165						2170					2175			
Asn	Pro	Gly	Glu	Lys	Val	Lys	Ile	Cys	Asp	Met	Gln	Met	Arg	Gly
2180						2185					2190			
Thr	Pro	Arg	Asp	Leu	Leu	Pro	Gly	Asp	Pro	Ile	Cys	Ser	Pro	Val
2195						2200					2205			
Ala	Ala	Val	Leu	Ala	Glu	Ala	Thr	Ile	Gln	Leu	Val	Arg	Ile	Leu
2210						2215					2220			
His	Arg	Thr	Asp	Arg	Trp	Thr	Tyr	Cys	Ile	Asn	Lys	Lys	Met	Met
2225						2230					2235			
Glu	Arg	Leu	His	Lys	Ile	Lys	Ile	Cys	Ile	Lys	Glu	Ser	Gly	Gln
2240						2245					2250			
Lys	Leu	Lys	Lys	Ser	Arg	Ser	Val	Gln	Ser	Arg	Glu	Glu	Asn	Glu
2255						2260					2265			

Met	Arg	Glu	Glu	Lys	Glu	Ser	Lys	Glu	Glu	Glu	Lys	Gly	Lys	His
2270						2275					2280			
Thr	Arg	His	Gly	Leu	Ala	Asp	Leu	Ser	Glu	Leu	Gln	Leu	Arg	Thr
2285						2290					2295			
Leu	Cys	Ile	Glu	Val	Trp	Pro	Val	Leu	Ala	Val	Ile	Gly	Gly	Val
2300						2305					2310			
Asp	Ala	Gly	Leu	Arg	Val	Gly	Gly	Arg	Cys	Val	His	Lys	Gln	Thr
2315						2320					2325			
Gly	Arg	His	Ala	Thr	Leu	Leu	Gly	Val	Val	Lys	Glu	Gly	Ser	Thr
2330						2335					2340			
Ser	Ala	Lys	Val	Gln	Trp	Asp	Glu	Ala	Glu	Ile	Thr	Ile	Ser	Phe
2345						2350					2355			
Pro	Thr	Phe	Trp	Ser	Pro	Ser	Asp	Thr	Pro	Leu	Tyr	Asn	Leu	Glu
2360						2365					2370			
Pro	Cys	Glu	Pro	Leu	Pro	Phe	Asp	Val	Ala	Arg	Phe	Arg	Gly	Leu
2375						2380					2385			
Thr	Ala	Ser	Val	Leu	Leu	Asp	Leu	Thr	Tyr	Leu	Thr	Gly	Val	His
2390						2395					2400			
Glu	Asp	Met	Gly	Lys	Gln	Ser	Thr	Lys	Arg	His	Glu	Lys	Lys	His
2405						2410					2415			
Arg	His	Glu	Ser	Glu	Glu	Lys	Gly	Asp	Val	Glu	Gln	Lys	Pro	Glu
2420						2425					2430			
Ser	Glu	Ser	Ala	Leu	Asp	Met	Arg	Thr	Gly	Leu	Thr	Ser	Asp	Asp
2435						2440					2445			
Val	Lys	Ser	Gln	Ser	Thr	Thr	Ser	Ser	Lys	Ser	Glu	Asn	Glu	Ile
2450						2455					2460			
Ala	Ser	Phe	Ser	Leu	Asp	Pro	Thr	Leu	Pro	Ser	Val	Glu	Ser	Gln
2465						2470					2475			
His	Gln	Ile	Thr	Glu	Gly	Lys	Arg	Lys	Asn	His	Glu	His	Met	Ser
2480						2485					2490			
Lys	Asn	His	Asp	Val	Ala	Gln	Ser	Glu	Ile	Arg	Ala	Val	Gln	Leu
2495						2500					2505			
Ser	Tyr	Leu	Tyr	Leu	Gly	Ala	Met	Lys	Ser	Leu	Ser	Ala	Leu	Leu
2510						2515					2520			
Gly	Cys	Ser	Lys	Tyr	Ala	Glu	Leu	Leu	Leu	Ile	Pro	Lys	Val	Leu
2525						2530					2535			
Ala	Glu	Asn	Gly	His	Asn	Ser	Asp	Cys	Ala	Ser	Ser	Pro	Val	Val
2540						2545					2550			
His	Glu	Asp	Val	Glu	Met	Arg	Ala	Ala	Leu	Gln	Phe	Leu	Met	Arg
2555						2560					2565			

His Met	Val Lys Arg Ala	Val	Met Arg Ser Pro	Ile	Lys Arg Ala
2570		2575		2580	
Leu Gly	Leu Ala Asp Leu	Glu	Arg Ala Gln Ala	Met	Ile Tyr Lys
2585		2590		2595	
Leu Val	Val His Gly Leu	Leu	Glu Asp Gln Phe	Gly	Gly Lys Ile
2600		2605		2610	
Lys Gln	Glu Ile Asp Gln	Gln	Ala Glu Glu Ser	Asp	Pro Ala Gln
2615		2620		2625	
Gln Ala	Gln Thr Pro Val	Thr	Thr Ser Pro Ser	Ala	Ser Ser Thr
2630		2635		2640	
Thr Ser	Phe Met Ser Ser	Ser	Leu Glu Asp Thr	Thr	Thr Ala Thr
2645		2650		2655	
Thr Pro	Val Thr Asp Thr	Glu	Thr Val Pro Ala	Ser	Glu Ser Pro
2660		2665		2670	
Gly Val	Met Pro Leu Ser	Leu	Leu Arg Gln Met	Phe	Ser Ser Tyr
2675		2680		2685	
Pro Thr	Thr Thr Val Leu	Pro	Thr Arg Arg Ala	Gln	Thr Pro Pro
2690		2695		2700	
Ile Ser	Ser Leu Pro Thr	Ser	Pro Ser Asp Glu	Val	Gly Arg Arg
2705		2710		2715	
Gln Ser	Leu Thr Ser Pro	Asp	Ser Gln Ser Ala	Arg	Pro Ala Asn
2720		2725		2730	
Arg Thr	Ala Leu Ser Asp	Pro	Ser Ser Arg Leu	Ser	Thr Ser Pro
2735		2740		2745	
Pro Pro	Pro Ala Ile Ala	Val	Pro Leu Leu Glu	Met	Gly Phe Ser
2750		2755		2760	
Leu Arg	Gln Ile Ala Lys	Ala	Met Glu Ala Thr	Gly	Ala Arg Gly
2765		2770		2775	
Glu Ala	Asp Ala Gln Asn	Ile	Thr Val Leu Ala	Met	Trp Met Ile
2780		2785		2790	
Glu His	Pro Gly His Glu	Asp	Glu Glu Glu Pro	Gln	Ser Gly Ser
2795		2800		2805	
Thr Ala	Asp Ser Arg Pro	Gly	Ala Ala Val Leu	Gly	Ser Gly Gly
2810		2815		2820	
Lys Ser	Asn Asp Pro Cys	Tyr	Leu Gln Ser Pro	Gly	Asp Ile Pro
2825		2830		2835	
Ser Ala	Asp Ala Ala Glu	Met	Glu Glu Gly Phe	Ser	Glu Ser Pro
2840		2845		2850	
Asp Asn	Leu Asp His Thr	Glu	Asn Ala Ala Ser	Gly	Ser Gly Pro
2855		2860		2865	

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Ser	Ala	Arg	Gly	Arg	Ser	Ala	Val	Thr	Arg	Arg	His	Lys	Phe	Asp
2870						2875					2880			
Leu	Ala	Ala	Arg	Thr	Leu	Leu	Ala	Arg	Ala	Ala	Gly	Leu	Tyr	Arg
2885						2890					2895			
Ser	Val	Gln	Ala	His	Arg	Asn	Gln	Ser	Arg	Arg	Glu	Gly	Ile	Ser
2900						2905					2910			
Leu	Gln	Gln	Asp	Pro	Gly	Ala	Leu	Tyr	Asp	Phe	Asn	Leu	Asp	Glu
2915						2920					2925			
Glu	Leu	Glu	Ile	Asp	Leu	Asp	Asp	Glu	Ala	Met	Glu	Ala	Met	Phe
2930						2935					2940			
Gly	Gln	Asp	Leu	Thr	Ser	Asp	Asn	Asp	Ile	Leu	Gly	Met	Trp	Ile
2945						2950					2955			
Pro	Glu	Val	Leu	Asp	Trp	Pro	Thr	Trp	His	Val	Cys	Glu	Ser	Glu
2960						2965					2970			
Asp	Arg	Glu	Glu	Val	Val	Val	Cys	Glu	Leu	Cys	Glu	Cys	Ser	Val
2975						2980					2985			
Val	Ser	Phe	Asn	Gln	His	Met	Lys	Arg	Asn	His	Pro	Gly	Cys	Gly
2990						2995					3000			
Arg	Ser	Ala	Asn	Arg	Gln	Gly	Tyr	Arg	Ser	Asn	Gly	Ser	Tyr	Val
3005						3010					3015			
Asp	Gly	Trp	Phe	Gly	Gly	Glu	Cys	Gly	Ser	Gly	Asn	Pro	Tyr	Tyr
3020						3025					3030			
Leu	Leu	Cys	Gly	Thr	Cys	Arg	Glu	Lys	Tyr	Leu	Ala	Met	Lys	Thr
3035						3040					3045			
Lys	Ser	Lys	Ser	Thr	Ser	Ser	Glu	Arg	Tyr	Lys	Gly	Gln	Ala	Pro
3050						3055					3060			
Asp	Leu	Ile	Gly	Lys	Gln	Asp	Ser	Val	Tyr	Glu	Glu	Asp	Trp	Asp
3065						3070					3075			
Met	Leu	Asp	Val	Asp	Glu	Asp	Glu	Lys	Leu	Thr	Gly	Glu	Glu	Glu
3080						3085					3090			
Phe	Glu	Leu	Leu	Ala	Gly	Pro	Leu	Gly	Leu	Asn	Asp	Arg	Arg	Ile
3095						3100					3105			
Val	Pro	Glu	Pro	Val	Gln	Phe	Pro	Asp	Ser	Asp	Pro	Leu	Gly	Ala
3110						3115					3120			
Ser	Val	Ala	Met	Val	Thr	Ala	Thr	Asn	Ser	Met	Glu	Glu	Thr	Leu
3125						3130					3135			
Met	Gln	Ile	Gly	Cys	His	Gly	Ser	Val	Glu	Lys	Ser	Ser	Ser	Gly
3140						3145					3150			
Arg	Ile	Thr	Leu	Gly	Glu	Gln	Ala	Ala	Ala	Leu	Ala	Asn	Pro	His
3155						3160					3165			

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Asp Arg	Val Val Ala Leu Arg	Arg Val Thr Ala Ala	Ala Gln Val
3170	3175	3180	
Leu Leu	Ala Arg Thr Met Val	Met Arg Ala Leu Ser	Leu Leu Ser
3185	3190	3195	
Val Ser	Gly Ser Ser Cys Ser	Leu Ala Ala Gly Leu	Glu Ser Leu
3200	3205	3210	
Gly Leu	Thr Asp Ile Arg Thr	Leu Val Arg Leu Met	Cys Leu Ala
3215	3220	3225	
Ala Ala	Gly Arg Ala Gly Leu	Ser Thr Ser Pro Ser	Ala Met Ala
3230	3235	3240	
Ser Thr	Ser Glu Arg Ser Arg	Gly Gly His Ser Lys	Ala Asn Lys
3245	3250	3255	
Pro Ile	Ser Cys Leu Ala Tyr	Leu Ser Thr Ala Val	Gly Cys Leu
3260	3265	3270	
Ala Ser	Asn Ala Pro Ser Ala	Ala Lys Leu Leu Val	Gln Leu Cys
3275	3280	3285	
Thr Gln	Asn Leu Ile Ser Ala	Ala Thr Gly Val Asn	Leu Thr Thr
3290	3295	3300	
Val Asp	Asp Ser Ile Gln Arg	Lys Phe Leu Pro Ser	Phe Leu Arg
3305	3310	3315	
Gly Ile	Ala Glu Glu Asn Lys	Leu Val Thr Ser Pro	Asn Phe Val
3320	3325	3330	
Val Thr	Gln Ala Leu Val Ala	Leu Leu Ala Asp Lys	Gly Ala Lys
3335	3340	3345	
Leu Arg	Pro Asn Tyr Asp Lys	Ser Glu Val Glu Lys	Lys Gly Pro
3350	3355	3360	
Leu Glu	Leu Ala Asn Ala Leu	Ala Ala Cys Cys Leu	Ser Ser Arg
3365	3370	3375	
Leu Ser	Ser Gln His Arg Gln	Trp Ala Ala Gln Gln	Leu Val Arg
3380	3385	3390	
Thr Leu	Ala Ala His Asp Arg	Asp Asn Gln Thr Thr	Leu Gln Thr
3395	3400	3405	
Leu Ala	Asp Met Gly Gly Asp	Leu Arg Lys Cys Ser	Phe Ile Lys
3410	3415	3420	
Leu Glu	Ala His Gln Asn Arg	Val Met Thr Cys Val	Trp Cys Asn
3425	3430	3435	
Lys Lys	Gly Leu Leu Ala Thr	Ser Gly Asn Asp Gly	Thr Ile Arg
3440	3445	3450	
Val Trp	Asn Val Thr Lys Lys	Gln Tyr Ser Leu Gln	Gln Thr Cys
3455	3460	3465	

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Val Phe	Asn Arg	Leu Glu	Gly	Asp Ala	Glu Glu	Ser	Leu Gly	Ser
3470			3475			3480		
Pro Ser	Asp Pro	Ser Phe	Ser	Pro Val	Ser Trp	Ser	Ile Ser	Gly
3485			3490			3495		
Lys Tyr	Leu Ala	Gly Ala	Leu	Glu Lys	Met Val	Asn	Ile Trp	Gln
3500			3505			3510		
Val Asn	Gly Gly	Lys Gly	Leu	Val Asp	Ile Gln	Pro	His Trp	Val
3515			3520			3525		
Ser Ala	Leu Ala	Trp Pro	Glu	Glu Gly	Pro Ala	Thr	Ala Trp	Ser
3530			3535			3540		
Gly Glu	Ser Pro	Glu Leu	Leu	Leu Val	Gly Arg	Met	Asp Gly	Ser
3545			3550			3555		
Leu Gly	Leu Ile	Glu Val	Val	Asp Val	Ser Thr	Met	His Arg	Arg
3560			3565			3570		
Glu Leu	Glu His	Cys Tyr	Arg	Lys Asp	Val Ser	Val	Thr Cys	Ile
3575			3580			3585		
Ala Trp	Phe Ser	Glu Asp	Arg	Pro Phe	Ala Val	Gly	Tyr Phe	Asp
3590			3595			3600		
Gly Lys	Leu Leu	Leu Gly	Thr	Lys Glu	Pro Leu	Glu	Lys Gly	Gly
3605			3610			3615		
Ile Val	Leu Ile	Asp Ala	His	Lys Asp	Thr Leu	Ile	Ser Met	Lys
3620			3625			3630		
Trp Asp	Pro Thr	Gly His	Ile	Leu Met	Thr Cys	Ala	Lys Glu	Asp
3635			3640			3645		
Ser Val	Lys Leu	Trp Gly	Ser	Ile Ser	Gly Cys	Trp	Cys Cys	Leu
3650			3655			3660		
His Ser	Leu Cys	His Pro	Ser	Ile Val	Asn Gly	Ile	Ala Trp	Cys
3665			3670			3675		
Arg Leu	Pro Gly	Lys Gly	Ser	Lys Leu	Gln Leu	Leu	Met Ala	Thr
3680			3685			3690		
Gly Cys	Gln Ser	Gly Leu	Val	Cys Val	Trp Arg	Ile	Pro Gln	Asp
3695			3700			3705		
Thr Thr	Gln Thr	Asn Val	Thr	Ser Ala	Glu Gly	Trp	Trp Asp	Gln
3710			3715			3720		
Glu Ser	Asn Cys	Gln Asp	Gly	Tyr Arg	Lys Ser	Ser	Gly Ala	Lys
3725			3730			3735		
Cys Val	Tyr Gln	Leu Arg	Gly	His Ile	Thr Pro	Val	Arg Thr	Val
3740			3745			3750		
Ala Phe	Ser Ser	Asp Gly	Leu	Ala Leu	Val Ser	Gly	Gly Leu	Gly
3755			3760			3765		

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Gly Leu Met Asn Ile Trp Ser Leu Arg Asp Gly Ser Val Leu Gln
3770 3775 3780

Thr Val Val Ile Gly Ser Gly Ala Ile Gln Thr Thr Val Trp Ile
3785 3790 3795

Pro Glu Val Gly Val Ala Ala Cys Ser Asn Arg Ser Lys Asp Val
3800 3805 3810

Leu Val Val Asn Cys Thr Ala Glu Trp Ala Ala Ala Asn His Val
3815 3820 3825

Leu Ala Thr Cys Arg Thr Ala Leu Lys Gln Gln Gly Val Leu Gly
3830 3835 3840

Leu Asn Met Ala Pro Cys Met Arg Ala Phe Leu Glu Arg Leu Pro
3845 3850 3855

Met Met Leu Gln Glu Gln Tyr Ala Tyr Glu Lys Pro His Val Val
3860 3865 3870

Cys Gly Asp Gln Leu Val His Ser Pro Tyr Met Gln Cys Leu Ala
3875 3880 3885

Ser Leu Ala Val Gly Leu His Leu Asp Gln Leu Leu Cys Asn Pro
3890 3895 3900

Pro Val Pro Pro His His Gln Asn Cys Leu Pro Asp Pro Ala Ser
3905 3910 3915

Trp Asn Pro Asn Glu Trp Ala Trp Leu Glu Cys Phe Ser Thr Thr
3920 3925 3930

Ile Lys Ala Ala Glu Ala Leu Thr Asn Gly Ala Gln Phe Pro Glu
3935 3940 3945

Ser Phe Thr Val Pro Asp Leu Glu Pro Val Pro Glu Asp Glu Leu
3950 3955 3960

Val Phe Leu Met Asp Asn Ser Lys Trp Ile Asn Gly Met Asp Glu
3965 3970 3975

Gln Ile Met Ser Trp Ala Thr Ser Arg Pro Glu Asp Trp His Leu
3980 3985 3990

Gly Gly Lys Cys Asp Val Tyr Leu Trp Gly Ala Gly Arg His Gly
3995 4000 4005

Gln Leu Ala Glu Ala Gly Arg Asn Val Met Val Pro Ala Ala Ala
4010 4015 4020

Pro Ser Phe Ser Gln Ala Gln Gln Val Ile Cys Gly Gln Asn Cys
4025 4030 4035

Thr Phe Val Ile Gln Ala Asn Gly Thr Val Leu Ala Cys Gly Glu
4040 4045 4050

Gly Ser Tyr Gly Arg Leu Gly Gln Gly Asn Ser Asp Asp Leu His
4055 4060 4065

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Val	Leu	Thr	Val	Ile	Ser	Ala	Leu	Gln	Gly	Phe	Val	Val	Thr	Gln
4070						4075					4080			
Leu	Val	Thr	Ser	Cys	Gly	Ser	Asp	Gly	His	Ser	Met	Ala	Leu	Thr
4085						4090					4095			
Glu	Ser	Gly	Glu	Val	Phe	Ser	Trp	Gly	Asp	Gly	Asp	Tyr	Gly	Lys
4100						4105					4110			
Leu	Gly	His	Gly	Asn	Ser	Asp	Arg	Gln	Arg	Arg	Pro	Arg	Gln	Ile
4115						4120					4125			
Glu	Ala	Leu	Gln	Gly	Glu	Glu	Val	Val	Gln	Met	Ser	Cys	Gly	Phe
4130						4135					4140			
Lys	His	Ser	Ala	Val	Val	Thr	Ser	Asp	Gly	Lys	Leu	Phe	Thr	Phe
4145						4150					4155			
Gly	Asn	Gly	Asp	Tyr	Gly	Arg	Leu	Gly	Leu	Gly	Asn	Thr	Ser	Asn
4160						4165					4170			
Lys	Lys	Leu	Pro	Glu	Arg	Val	Thr	Ala	Leu	Glu	Gly	Tyr	Gln	Ile
4175						4180					4185			
Gly	Gln	Val	Ala	Cys	Gly	Leu	Asn	His	Thr	Leu	Ala	Val	Ser	Ala
4190						4195					4200			
Asp	Gly	Ser	Met	Val	Trp	Ala	Phe	Gly	Asp	Gly	Asp	Tyr	Gly	Lys
4205						4210					4215			
Leu	Gly	Leu	Gly	Asn	Ser	Thr	Ala	Lys	Ser	Ser	Pro	Gln	Lys	Ile
4220						4225					4230			
Asp	Val	Leu	Cys	Gly	Ile	Gly	Ile	Lys	Lys	Val	Ala	Cys	Gly	Thr
4235						4240					4245			
Gln	Phe	Ser	Val	Ala	Leu	Thr	Lys	Asp	Gly	His	Val	Tyr	Thr	Phe
4250						4255					4260			
Gly	Gln	Asp	Arg	Leu	Ile	Gly	Leu	Pro	Glu	Gly	Arg	Ala	Arg	Asn
4265						4270					4275			
His	Asn	Arg	Pro	Gln	Gln	Ile	Pro	Val	Leu	Ala	Gly	Val	Ile	Ile
4280						4285					4290			
Glu	Asp	Val	Ala	Val	Gly	Ala	Glu	His	Thr	Leu	Ala	Leu	Ala	Ser
4295						4300					4305			
Asn	Gly	Asp	Val	Tyr	Ala	Trp	Gly	Ser	Asn	Ser	Glu	Gly	Gln	Leu
4310						4315					4320			
Gly	Leu	Gly	His	Thr	Asn	His	Val	Arg	Glu	Pro	Thr	Leu	Val	Thr
4325						4330					4335			
Gly	Leu	Gln	Gly	Lys	Asn	Val	Arg	Gln	Ile	Ser	Ala	Gly	Arg	Cys
4340						4345					4350			
His	Ser	Ala	Ala	Trp	Thr	Ala	Pro	Pro	Val	Pro	Pro	Arg	Ala	Pro
4355						4360					4365			

Gly Val	Ser Val	Pro Leu	Gln	Leu Gly	Leu Pro	Asp	Thr Val	Pro	
4370			4375			4380			
Pro Gln	Tyr Gly	Ala Leu	Arg	Glu Val	Ser Ile	His	Thr Val	Arg	
4385			4390			4395			
Ala Arg	Leu Arg	Leu Leu	Tyr	His Phe	Ser Asp	Leu	Met Tyr	Ser	
4400			4405			4410			
Ser Trp	Arg Leu	Leu Asn	Leu	Ser Pro	Asn Asn	Gln	Asn Ser	Thr	
4415			4420			4425			
Ser His	Tyr Asn	Ala Gly	Thr	Trp Gly	Ile Val	Gln	Gly Gln	Leu	
4430			4435			4440			
Arg Pro	Leu Leu	Ala Pro	Arg	Val Tyr	Thr Leu	Pro	Met Val	Arg	
4445			4450			4455			
Ser Ile	Gly Lys	Thr Met	Val	Gln Gly	Lys Asn	Tyr	Gly Pro	Gln	
4460			4465			4470			
Ile Thr	Val Lys	Arg Ile	Ser	Thr Arg	Gly Arg	Lys	Cys Lys	Pro	
4475			4480			4485			
Ile Phe	Val Gln	Ile Ala	Arg	Gln Val	Val Lys	Leu	Asn Ala	Ser	
4490			4495			4500			
Asp Leu	Arg Leu	Pro Ser	Arg	Ala Trp	Lys Val	Lys	Leu Val	Gly	
4505			4510			4515			
Glu Gly	Ala Asp	Asp Ala	Gly	Gly Val	Phe Asp	Asp	Thr Ile	Thr	
4520			4525			4530			
Glu Met	Cys Gln	Glu Leu	Glu	Thr Gly	Ile Val	Asp	Leu Leu	Ile	
4535			4540			4545			
Pro Ser	Pro Asn	Ala Thr	Ala	Glu Val	Gly Tyr	Asn	Arg Asp	Arg	
4550			4555			4560			
Phe Leu	Phe Asn	Pro Ser	Ala	Cys Leu	Asp Glu	His	Leu Met	Gln	
4565			4570			4575			
Phe Lys	Phe Leu	Gly Ile	Leu	Met Gly	Val Ala	Ile	Arg Thr	Lys	
4580			4585			4590			
Lys Pro	Leu Asp	Leu His	Leu	Ala Pro	Leu Val	Trp	Lys Gln	Leu	
4595			4600			4605			
Cys Cys	Val Pro	Leu Thr	Leu	Glu Asp	Leu Glu	Glu	Val Asp	Leu	
4610			4615			4620			
Leu Tyr	Val Gln	Thr Leu	Asn	Ser Ile	Leu His	Ile	Glu Asp	Ser	
4625			4630			4635			
Gly Ile	Thr Glu	Glu Ser	Phe	His Glu	Met Ile	Pro	Leu Asp	Ser	
4640			4645			4650			
Phe Val	Gly Gln	Ser Ala	Asp	Gly Lys	Met Val	Pro	Ile Ile	Pro	
4655			4660			4665			

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Gly Gly Asn Ser Ile Pro Leu Thr Phe Ser Asn Arg Lys Glu Tyr
 4670 4675 4680
 Val Glu Arg Ala Ile Glu Tyr Arg Leu His Glu Met Asp Arg Gln
 4685 4690 4695
 Val Ala Ala Val Arg Glu Gly Met Ser Trp Ile Val Pro Val Pro
 4700 4705 4710
 Leu Leu Ser Leu Leu Thr Ala Lys Gln Leu Glu Gln Met Val Cys
 4715 4720 4725
 Gly Met Pro Glu Ile Ser Val Glu Val Leu Lys Lys Val Val Arg
 4730 4735 4740
 Tyr Arg Glu Val Asp Glu Gln His Gln Leu Val Gln Trp Phe Trp
 4745 4750 4755
 His Thr Leu Glu Glu Phe Ser Asn Glu Glu Arg Val Leu Phe Met
 4760 4765 4770
 Arg Phe Val Ser Gly Arg Ser Arg Leu Pro Ala Asn Thr Ala Asp
 4775 4780 4785
 Ile Ser Gln Arg Phe Gln Ile Met Lys Val Asp Arg Pro Tyr Asp
 4790 4795 4800
 Ser Leu Pro Thr Ser Gln Thr Cys Phe Phe Gln Leu Arg Leu Pro
 4805 4810 4815
 Pro Tyr Ser Ser Gln Leu Val Met Ala Glu Arg Leu Arg Tyr Ala
 4820 4825 4830
 Ile Asn Asn Cys Arg Ser Ile Asp Met Asp Asn Tyr Met Leu Ser
 4835 4840 4845
 Arg Asn Val Asp Asn Ala Glu Gly Ser Asp Thr Asp Tyr
 4850 4855 4860

<210> 71
 <211> 292
 <212> PRT
 <213> Homo sapiens

<400> 71

Met Ala Ser Ser Met Arg Ser Leu Phe Ser Asp His Gly Lys Tyr Val
 1 5 10 15
 Glu Ser Phe Arg Arg Phe Leu Asn His Ser Thr Glu His Gln Cys Met
 20 25 30
 Gln Glu Phe Met Asp Lys Lys Leu Pro Gly Ile Ile Gly Arg Ile Gly
 35 40 45
 Asp Thr Lys Ser Glu Ile Lys Ile Leu Ser Ile Gly Gly Gly Ala Gly
 50 55 60
 Glu Ile Asp Leu Gln Ile Leu Ser Lys Val Gln Ala Gln Tyr Pro Gly

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65		70		75		80
Val Cys Ile Asn Asn Glu Val Val Glu Pro Ser Ala Glu Gln Ile Ala						
		85		90		95
Lys Tyr Lys Glu Leu Val Ala Lys Thr Ser Asn Leu Glu Asn Val Lys						
		100		105		110
Phe Ala Trp His Lys Glu Thr Ser Ser Glu Tyr Gln Ser Arg Met Leu						
		115		120		125
Glu Lys Lys Glu Leu Gln Lys Trp Asp Phe Ile His Met Ile Gln Met						
		130		135		140
Leu Tyr Tyr Val Lys Asp Ile Pro Ala Thr Leu Lys Phe Phe His Ser						
		145		150		155
Leu Leu Gly Thr Asn Ala Lys Met Leu Ile Ile Val Val Ser Gly Ser						
		165		170		175
Ser Gly Trp Asp Lys Leu Trp Lys Lys Tyr Gly Ser Arg Phe Pro Gln						
		180		185		190
Asp Asp Leu Cys Gln Tyr Ile Thr Ser Asp Asp Leu Thr Gln Met Leu						
		195		200		205
Asp Asn Leu Gly Leu Lys Tyr Glu Cys Tyr Asp Leu Leu Ser Thr Met						
		210		215		220
Asp Ile Ser Asp Cys Phe Ile Asp Gly Asn Glu Asn Gly Asp Leu Leu						
		225		230		235
Trp Asp Phe Leu Thr Glu Thr Cys Asn Phe Asn Ala Thr Ala Pro Pro						
		245		250		255
Asp Leu Arg Ala Glu Leu Gly Lys Asp Leu Gln Glu Pro Glu Phe Ser						
		260		265		270
Ala Lys Lys Glu Gly Lys Val Leu Phe Asn Asn Thr Leu Ser Phe Ile						
		275		280		285
Val Ile Glu Ala						
		290				
<210> 72						
<211> 481						
<212> PRT						
<213> Homo sapiens						
<400> 72						
Met Ala Leu Ser Tyr Arg Val Ser Glu Leu Gln Ser Thr Ile Pro Glu						
1		5		10		15
His Ile Leu Gln Ser Thr Phe Val His Val Ile Ser Ser Asn Trp Ser						
		20		25		30
Gly Leu Gln Thr Glu Ser Ile Pro Glu Glu Met Lys Gln Ile Val Glu						
		35		40		45

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Glu Gln Gly Asn Lys Leu His Trp Ala Ala Leu Leu Ile Leu Met Val
 50 55 60
 Ile Ile Pro Thr Ile Gly Gly Asn Thr Leu Val Ile Leu Ala Val Ser
 65 70 75 80
 Leu Glu Lys Lys Leu Gln Tyr Ala Thr Asn Tyr Phe Leu Met Ser Leu
 85 90 95
 Ala Val Ala Asp Leu Leu Val Gly Leu Phe Val Met Pro Ile Ala Leu
 100 105 110
 Leu Thr Ile Met Phe Glu Ala Met Trp Pro Leu Pro Leu Val Leu Cys
 115 120 125
 Pro Ala Trp Leu Phe Leu Asp Val Leu Phe Ser Thr Ala Ser Ile Met
 130 135 140
 His Leu Cys Ala Ile Ser Val Asp Arg Tyr Ile Ala Ile Lys Lys Pro
 145 150 155 160
 Ile Gln Ala Asn Gln Tyr Asn Ser Arg Ala Thr Ala Phe Ile Lys Ile
 165 170 175
 Thr Val Val Trp Leu Ile Ser Ile Gly Ile Ala Ile Pro Val Pro Ile
 180 185 190
 Lys Gly Ile Glu Thr Asp Val Asp Asn Pro Asn Asn Ile Thr Cys Val
 195 200 205
 Leu Thr Lys Glu Arg Phe Gly Asp Phe Met Leu Phe Gly Ser Leu Ala
 210 215 220
 Ala Phe Phe Thr Pro Leu Ala Ile Met Ile Val Thr Tyr Phe Leu Thr
 225 230 235 240
 Ile His Ala Leu Gln Lys Lys Ala Tyr Leu Val Lys Asn Lys Pro Pro
 245 250 255
 Gln Arg Leu Thr Trp Leu Thr Val Ser Thr Val Phe Gln Arg Asp Glu
 260 265 270
 Thr Pro Cys Ser Ser Pro Glu Lys Val Ala Met Leu Asp Gly Ser Arg
 275 280 285
 Lys Asp Lys Ala Leu Pro Asn Ser Gly Asp Glu Thr Leu Met Arg Arg
 290 295 300
 Thr Ser Thr Ile Gly Lys Lys Ser Val Gln Thr Ile Ser Asn Glu Gln
 305 310 315 320
 Arg Ala Ser Lys Val Leu Gly Ile Val Phe Phe Leu Phe Leu Leu Met
 325 330 335
 Trp Cys Pro Phe Phe Ile Thr Asn Ile Thr Leu Val Leu Cys Asp Ser
 340 345 350
 Cys Asn Gln Thr Thr Leu Gln Met Leu Leu Glu Ile Phe Val Trp Ile
 355 360 365

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Lys Tyr Phe Gln Arg Ile Thr Leu Tyr Leu Thr Glu Lys Lys Tyr Ser
145 150 155 160

Pro Cys Ala Trp Glu Val Val Arg Ala Glu Ile Met Arg Ser Phe Ser
165 170 175

Leu Ser Lys Ile Phe Gln Glu Arg Leu Arg Arg Lys Glu
180 185

<210> 74
<211> 153
<212> PRT
<213> Homo sapiens

<400> 74

Met Gly Lys Ile Ser Ser Leu Pro Thr Gln Leu Phe Lys Cys Cys Phe
1 5 10 15

Cys Asp Phe Leu Lys Val Lys Met His Thr Met Ser Ser Ser His Leu
20 25 30

Phe Tyr Leu Ala Leu Cys Leu Leu Thr Phe Thr Ser Ser Ala Thr Ala
35 40 45

Gly Pro Glu Thr Leu Cys Gly Ala Glu Leu Val Asp Ala Leu Gln Phe
50 55 60

Val Cys Gly Asp Arg Gly Phe Tyr Phe Asn Lys Pro Thr Gly Tyr Gly
65 70 75 80

Ser Ser Ser Arg Arg Ala Pro Gln Thr Gly Ile Val Asp Glu Cys Cys
85 90 95

Phe Arg Ser Cys Asp Leu Arg Arg Leu Glu Met Tyr Cys Ala Pro Leu
100 105 110

Lys Pro Ala Lys Ser Ala Arg Ser Val Arg Ala Gln Arg His Thr Asp
115 120 125

Met Pro Lys Thr Gln Lys Glu Val His Leu Lys Asn Ala Ser Arg Gly
130 135 140

Ser Ala Gly Asn Lys Asn Tyr Arg Met
145 150

<210> 75
<211> 632
<212> PRT
<213> Homo sapiens

<220>
<221> UNSURE
<222> (199)..(199)
<223> Xaa = any amino acid

<400> 75

Met Glu Thr Pro Ala Ala Ala Ala Pro Ala Gly Ser Leu Phe Pro Ser
1 5 10 15

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Phe Leu Leu Leu Ala Cys Gly Thr Leu Val Ala Ala Leu Leu Gly Ala
 20 25 30
 Ala His Arg Leu Gly Leu Phe Tyr Gln Leu Leu His Lys Val Asp Lys
 35 40 45
 Ala Ser Val Arg His Gly Gly Glu Asn Val Ala Ala Val Leu Arg Ala
 50 55 60
 His Gly Val Arg Phe Ile Phe Thr Leu Val Gly Gly His Ile Ser Pro
 65 70 75 80
 Leu Leu Val Ala Cys Glu Lys Leu Gly Ile Arg Val Val Asp Thr Arg
 85 90 95
 His Glu Val Thr Ala Val Phe Ala Ala Asp Ala Met Ala Arg Leu Ser
 100 105 110
 Gly Thr Val Gly Val Ala Ala Val Thr Ala Gly Pro Gly Leu Thr Asn
 115 120 125
 Thr Val Thr Ala Val Lys Asn Ala Gln Met Ala Gln Ser Pro Ile Leu
 130 135 140
 Leu Leu Gly Gly Ala Ala Ser Thr Leu Leu Gln Asn Arg Gly Ala Leu
 145 150 155 160
 Gln Ala Val Asp Gln Leu Ser Leu Phe Arg Pro Leu Cys Lys Phe Cys
 165 170 175
 Val Ser Val Arg Arg Val Arg Asp Ile Val Pro Thr Leu Arg Ala Ala
 180 185 190
 Met Ala Ala Ala Gln Ser Xaa Thr Pro Gly Pro Val Phe Val Glu Leu
 195 200 205
 Pro Val Asp Val Leu Tyr Pro Tyr Phe Met Val Gln Lys Glu Met Val
 210 215 220
 Pro Ala Lys Pro Pro Lys Gly Leu Val Gly Arg Val Val Ser Trp Tyr
 225 230 235 240
 Leu Glu Asn Tyr Leu Ala Asn Leu Phe Ala Gly Ala Trp Glu Pro Gln
 245 250 255
 Pro Glu Gly Pro Leu Pro Leu Asp Ile Pro Gln Ala Ser Pro Gln Gln
 260 265 270
 Val Gln Arg Cys Val Glu Ile Leu Ser Arg Ala Lys Arg Pro Leu Met
 275 280 285
 Val Leu Gly Ser Gln Ala Leu Leu Thr Pro Thr Ser Ala Asp Lys Leu
 290 295 300
 Arg Ala Ala Val Glu Thr Leu Gly Val Pro Cys Phe Leu Gly Gly Met
 305 310 315 320
 Ala Arg Gly Leu Leu Gly Arg Asn His Pro Leu His Ile Arg Glu Asn
 325 330 335

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Arg Ser Ala Ala Leu Lys Lys Ala Asp Val Ile Val Leu Ala Gly Thr
340 345 350

Val Cys Asp Phe Arg Leu Ser Tyr Gly Arg Val Leu Ser His Ser Ser
355 360 365

Lys Ile Ile Ile Val Asn Arg Asn Arg Glu Glu Met Leu Leu Asn Ser
370 375 380

Asp Ile Phe Trp Lys Pro Gln Glu Ala Val Gln Gly Asp Val Gly Ser
385 390 395 400

Phe Val Leu Lys Leu Val Glu Gly Leu Gln Gly Gln Thr Trp Ala Pro
405 410 415

Asp Trp Val Glu Glu Leu Arg Glu Ala Asp Arg Gln Lys Glu Gln Thr
420 425 430

Phe Arg Glu Lys Ala Ala Met Pro Val Ala Gln His Leu Asn Pro Val
435 440 445

Gln Val Leu Gln Leu Val Glu Glu Thr Leu Pro Asp Asn Ser Ile Leu
450 455 460

Val Val Asp Gly Gly Asp Phe Val Gly Thr Ala Ala His Leu Val Gln
465 470 475 480

Pro Arg Gly Pro Leu Arg Trp Leu Asp Pro Gly Ala Phe Gly Thr Leu
485 490 495

Gly Val Gly Ala Gly Phe Ala Leu Gly Ala Lys Leu Cys Arg Pro Asp
500 505 510

Ala Glu Val Trp Cys Leu Phe Gly Asp Gly Ala Phe Gly Tyr Ser Leu
515 520 525

Ile Glu Phe Asp Thr Phe Val Arg His Lys Ile Pro Val Met Ala Leu
530 535 540

Val Gly Asn Asp Ala Gly Trp Thr Gln Ile Ser Arg Glu Gln Val Pro
545 550 555 560

Ser Leu Gly Ser Asn Val Ala Cys Gly Leu Ala Tyr Thr Asp Tyr His
565 570 575

Lys Ala Ala Met Gly Leu Gly Ala Arg Gly Leu Leu Leu Ser Arg Glu
580 585 590

Asn Glu Asp Gln Val Val Lys Val Leu His Asp Ala Gln Gln Gln Cys
595 600 605

Arg Asp Gly His Pro Val Val Val Asn Ile Leu Ile Gly Arg Thr Asp
610 615 620

Phe Arg Asp Gly Ser Ile Ala Val
625 630

<210> 76
<211> 349
<212> PRT

0915497-073407

<213> Homo sapiens

<400> 76

Met	Pro	Val	Glu	Arg	Met	Arg	Met	Arg	Pro	Trp	Leu	Glu	Glu	Gln	Ile	1	5	10	15
Asn	Ser	Asn	Thr	Ile	Pro	Gly	Leu	Lys	Trp	Leu	Asn	Lys	Glu	Lys	Lys	20	25	30	
Ile	Phe	Gln	Ile	Pro	Trp	Met	His	Ala	Ala	Arg	His	Gly	Trp	Asp	Val	35	40	45	
Glu	Lys	Asp	Ala	Pro	Leu	Phe	Arg	Asn	Arg	Ala	Ile	His	Thr	Gly	Lys	50	55	60	
His	Gln	Pro	Gly	Val	Asp	Lys	Pro	Asp	Pro	Lys	Thr	Trp	Lys	Ala	Asn	65	70	75	80
Phe	Arg	Cys	Ala	Met	Asn	Ser	Leu	Pro	Asp	Ile	Glu	Glu	Val	Lys	Asp	85	90	95	
Lys	Ser	Ile	Lys	Lys	Gly	Asn	Asn	Ala	Phe	Arg	Val	Tyr	Arg	Met	Leu	100	105	110	
Pro	Leu	Ser	Glu	Arg	Pro	Ser	Lys	Lys	Gly	Lys	Lys	Pro	Lys	Thr	Glu	115	120	125	
Lys	Glu	Asp	Lys	Val	Lys	His	Ile	Lys	Gln	Glu	Pro	Val	Glu	Ser	Ser	130	135	140	
Leu	Gly	Leu	Ser	Asn	Gly	Val	Ser	Asp	Leu	Ser	Pro	Glu	Tyr	Ala	Val	145	150	155	160
Leu	Thr	Ser	Thr	Ile	Lys	Asn	Glu	Val	Asp	Ser	Thr	Val	Asn	Ile	Ile	165	170	175	
Val	Val	Gly	Gln	Ser	His	Leu	Asp	Ser	Asn	Ile	Glu	Asn	Gln	Glu	Ile	180	185	190	
Val	Thr	Asn	Pro	Pro	Asp	Ile	Cys	Gln	Val	Val	Glu	Val	Thr	Thr	Glu	195	200	205	
Ser	Asp	Glu	Gln	Pro	Val	Ser	Met	Ser	Glu	Leu	Tyr	Pro	Leu	Gln	Ile	210	215	220	
Ser	Pro	Val	Ser	Ser	Tyr	Ala	Glu	Ser	Glu	Thr	Thr	Asp	Ser	Val	Pro	225	230	235	240
Ser	Asp	Glu	Glu	Ser	Ala	Glu	Gly	Arg	Pro	His	Trp	Arg	Lys	Arg	Asn	245	250	255	
Ile	Glu	Gly	Lys	Gln	Tyr	Leu	Ser	Asn	Met	Gly	Thr	Arg	Gly	Ser	Tyr	260	265	270	
Leu	Leu	Pro	Gly	Met	Ala	Ser	Phe	Val	Thr	Ser	Asn	Lys	Pro	Asp	Leu	275	280	285	
Gln	Val	Thr	Ile	Lys	Glu	Glu	Ser	Asn	Pro	Val	Pro	Tyr	Asn	Ser	Ser	290	295	300	

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Thr Ser Val Lys Lys Lys Ser Ser Arg Asn Ile Phe Ser Ile Val Phe

225		230		235		240
Val Phe Phe Val Cys Phe Val Pro Tyr His Ile Ala Arg Ile Pro Tyr						
	245			250		255
Thr Lys Ser Gln Thr Glu Ala His Tyr Ser Cys Gln Ser Lys Glu Ile						
	260			265		270
Leu Arg Tyr Met Lys Glu Phe Thr Leu Leu Leu Ser Ala Ala Asn Val						
	275			280		285
Cys Leu Asp Pro Ile Ile Tyr Phe Phe Leu Cys Gln Pro Phe Arg Glu						
	290			295		300
Ile Leu Cys Lys Lys Leu His Ile Pro Leu Lys Ala Gln Asn Asp Leu						
	305			310		315
Asp Ile Ser Arg Ile Lys Arg Gly Asn Thr Thr Leu Glu Ser Thr Asp						
	325			330		335

Thr Leu

<210> 78
 <211> 232
 <212> PRT
 <213> Homo sapiens

<400> 78

Leu Glu Thr Gln Ile Glu Ala Leu Lys Glu Glu Leu Leu Phe Met Lys						
1		5			10	15
Lys Asn His Glu Glu Glu Val Lys Gly Leu Gln Ala Gln Ile Ala Ser						
	20			25		30
Ser Gly Leu Thr Val Glu Val Asp Ala Pro Lys Ser Gln Asp Leu Ser						
	35			40		45
Lys Ile Met Ala Asp Ile Arg Ala Gln Tyr Asp Glu Leu Ala Arg Lys						
	50			55		60
Asn Arg Glu Glu Leu Asp Lys Tyr Trp Ser Gln Gln Ile Glu Glu Ser						
	65			70		75
Thr Thr Val Val Thr Thr Gln Ser Ala Glu Val Gly Ala Ala Glu Thr						
	85			90		95
Thr Leu Thr Glu Leu Arg Arg Thr Val Gln Ser Leu Glu Ile Arg Leu						
	100			105		110
Asp Arg Met Arg Asn Leu Lys Ala Ser Leu Glu Asn Ser Leu Arg Glu						
	115			120		125
Val Glu Ala Arg Tyr Ala Leu Gln Met Glu Gln Leu Asn Gly Ile Leu						
	130			135		140
Leu His Leu Glu Ser Glu Leu Ala Gln Thr Arg Ala Glu Gly Gln Arg						
	145			150		155
						160

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Gln Ala Gln Glu Tyr Glu Ala Leu Leu Asn Ile Lys Val Lys Leu Glu
165 170 175

Ala Glu Ile Ala Thr Tyr Arg Arg Leu Leu Glu Asp Gly Glu Asp Phe
180 185 190

Asn Leu Gly Asp Ala Leu Asp Ser Ser Asn Ser Met Gln Thr Ile Gln
195 200 205

Lys Thr Thr Thr Arg Arg Ile Val Asp Gly Lys Val Val Ser Glu Thr
210 215 220

Asn Asp Thr Lys Val Leu Arg His
225 230

<210> 79

<211> 483

<212> PRT

<213> Homo sapiens

<400> 79

Met Ser Ile Arg Val Thr Gln Lys Ser Tyr Lys Val Ser Thr Ser Gly
1 5 10 15

Pro Arg Ala Phe Ser Ser Arg Ser Tyr Thr Ser Gly Pro Gly Ser Arg
20 25 30

Ile Ser Ser Ser Ser Phe Ser Arg Val Gly Ser Ser Asn Phe Arg Gly
35 40 45

Gly Leu Gly Gly Gly Tyr Gly Gly Ala Ser Gly Met Gly Gly Ile Thr
50 55 60

Ala Val Thr Val Asn Gln Ser Leu Leu Ser Pro Leu Val Leu Glu Val
65 70 75 80

Asp Pro Asn Ile Gln Ala Val Arg Thr Gln Glu Lys Glu Gln Ile Lys
85 90 95

Thr Leu Asn Asn Lys Phe Ala Ser Phe Ile Asp Lys Val Arg Phe Leu
100 105 110

Glu Gln Gln Asn Lys Met Leu Glu Thr Lys Trp Ser Leu Leu Gln Gln
115 120 125

Gln Lys Thr Ala Arg Ser Asn Met Asp Asn Met Phe Glu Ser Tyr Ile
130 135 140

Asn Asn Leu Arg Arg Gln Leu Glu Thr Leu Gly Gln Glu Lys Leu Lys
145 150 155 160

Leu Glu Ala Glu Leu Gly Asn Met Gln Gly Leu Val Glu Asp Phe Lys
165 170 175

Asn Lys Tyr Glu Asp Glu Ile Asn Lys Arg Thr Glu Met Glu Asn Glu
180 185 190

Phe Val Leu Ile Lys Lys Asp Val Asp Glu Ala Tyr Met Asn Lys Val
195 200 205

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<210> 80
<211> 440
<212> PRT
<213> Homo sapiens
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<400> 80

Met	Gly	Pro	Pro	Gly	Ser	Pro	Trp	Gln	Trp	Val	Thr	Leu	Leu	Leu	Gly	1	5	10	15
Leu	Leu	Leu	Pro	Pro	Ala	Ala	Pro	Phe	Trp	Leu	Leu	Asn	Val	Leu	Phe	20	25	30	
Pro	Pro	His	Thr	Thr	Pro	Lys	Ala	Glu	Leu	Ser	Asn	His	Thr	Arg	Pro	35	40	45	
Val	Ile	Leu	Val	Pro	Gly	Cys	Leu	Gly	Asn	Gln	Leu	Glu	Ala	Lys	Leu	50	55	60	
Asp	Lys	Pro	Asp	Val	Val	Asn	Trp	Met	Cys	Tyr	Arg	Lys	Thr	Glu	Asp	65	70	75	80
Phe	Phe	Thr	Ile	Trp	Leu	Asp	Leu	Asn	Met	Phe	Leu	Pro	Leu	Gly	Val	85	90	95	
Asp	Cys	Trp	Ile	Asp	Asn	Thr	Arg	Val	Val	Tyr	Asn	Arg	Ser	Ser	Gly	100	105	110	
Leu	Val	Ser	Asn	Ala	Pro	Gly	Val	Gln	Ile	Arg	Val	Pro	Gly	Phe	Gly	115	120	125	
Lys	Thr	Tyr	Ser	Val	Glu	Tyr	Leu	Asp	Ser	Ser	Lys	Leu	Ala	Gly	Tyr	130	135	140	
Leu	His	Thr	Leu	Val	Gln	Asn	Leu	Val	Asn	Asn	Gly	Tyr	Val	Arg	Asp	145	150	155	160
Glu	Thr	Val	Arg	Ala	Ala	Pro	Tyr	Asp	Trp	Arg	Leu	Glu	Pro	Gly	Gln	165	170	175	
Gln	Glu	Glu	Tyr	Tyr	Arg	Lys	Leu	Ala	Gly	Leu	Val	Glu	Glu	Met	His	180	185	190	
Ala	Ala	Tyr	Gly	Lys	Pro	Val	Phe	Leu	Ile	Gly	His	Ser	Leu	Gly	Cys	195	200	205	
Leu	His	Leu	Leu	Tyr	Phe	Leu	Leu	Arg	Gln	Pro	Gln	Ala	Trp	Lys	Asp	210	215	220	
Arg	Phe	Ile	Asp	Gly	Phe	Ile	Ser	Leu	Gly	Ala	Pro	Trp	Gly	Gly	Ser	225	230	235	240
Ile	Lys	Pro	Met	Leu	Val	Leu	Ala	Ser	Gly	Asp	Asn	Gln	Gly	Ile	Pro	245	250	255	
Ile	Met	Ser	Ser	Ile	Lys	Leu	Lys	Glu	Glu	Gln	Arg	Ile	Thr	Thr	Thr	260	265	270	
Ser	Pro	Trp	Met	Phe	Pro	Ser	Arg	Met	Ala	Trp	Pro	Glu	Asp	His	Val	275	280	285	
Phe	Ile	Ser	Thr	Pro	Ser	Phe	Asn	Tyr	Thr	Gly	Arg	Asp	Phe	Gln	Arg	290	295	300	
Phe	Phe	Ala	Asp	Leu	His	Phe	Glu	Glu	Gly	Trp	Tyr	Met	Trp	Leu	Gln				

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305              310              315              320
Ser Arg Asp Leu Leu Ala Gly Leu Pro Ala Pro Gly Val Glu Val Tyr
              325              330              335
Cys Leu Tyr Gly Val Gly Leu Pro Thr Pro Arg Thr Tyr Ile Tyr Asp
              340              345              350
His Gly Phe Pro Tyr Thr Asp Pro Val Gly Val Leu Tyr Glu Asp Gly
              355              360              365
Asp Asp Thr Val Ala Thr Arg Ser Thr Glu Leu Cys Gly Leu Trp Gln
              370              375              380
Gly Arg Gln Pro Gln Pro Val His Leu Leu Pro Leu His Gly Ile Gln
385              390              395              400
His Leu Asn Met Val Phe Ser Asn Leu Thr Leu Glu His Ile Asn Ala
              405              410              415
Ile Leu Leu Gly Ala Tyr Arg Gln Gly Pro Pro Ala Ser Pro Thr Ala
              420              425              430
Ser Pro Glu Pro Pro Pro Pro Glu
              435              440
<210> 81
<211> 135
<212> PRT
<213> Homo sapiens
<400> 81
Met Ala Cys Gly Leu Val Ala Ser Asn Leu Asn Leu Lys Pro Gly Glu
1              5              10              15
Cys Leu Arg Val Arg Gly Glu Val Ala Pro Asp Ala Lys Ser Phe Val
              20              25              30
Leu Asn Leu Gly Lys Asp Ser Asn Asn Leu Cys Leu His Phe Asn Pro
              35              40              45
Arg Phe Asn Ala His Gly Asp Ala Asn Thr Ile Val Cys Asn Ser Lys
              50              55              60
Asp Gly Gly Ala Trp Gly Thr Glu Gln Arg Glu Ala Val Phe Pro Phe
65              70              75              80
Gln Pro Gly Ser Val Ala Glu Val Cys Ile Thr Phe Asp Gln Ala Asn
              85              90              95
Leu Thr Val Lys Leu Pro Asp Gly Tyr Glu Phe Lys Phe Pro Asn Arg
              100              105              110
Leu Asn Leu Glu Ala Ile Asn Tyr Met Ala Ala Asp Gly Asp Phe Lys
              115              120              125
Ile Lys Cys Val Ala Phe Asp
              130              135

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<210> 82
 <211> 314
 <212> PRT
 <213> Homo sapiens

<400> 82

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Met Ala Pro Pro Gln Val Leu Ala Phe Gly Leu Leu Leu Ala Ala Ala
1          5          10          15

Thr Ala Thr Phe Ala Ala Ala Gln Glu Glu Cys Val Cys Glu Asn Tyr
20          25          30

Lys Leu Ala Val Asn Cys Phe Val Asn Asn Asn Arg Gln Cys Gln Cys
35          40          45

Thr Ser Val Gly Ala Gln Asn Thr Val Ile Cys Ser Lys Leu Ala Ala
50          55          60

Lys Cys Leu Val Met Lys Ala Glu Met Asn Gly Ser Lys Leu Gly Arg
65          70          75          80

Arg Ala Lys Pro Glu Gly Ala Leu Gln Asn Asn Asp Gly Leu Tyr Asp
85          90          95

Pro Asp Cys Asp Glu Ser Gly Leu Phe Lys Ala Lys Gln Cys Asn Gly
100         105         110

Thr Ser Thr Cys Trp Cys Val Asn Thr Ala Gly Val Arg Arg Thr Asp
115         120         125

Lys Asp Thr Glu Ile Thr Cys Ser Glu Arg Val Arg Thr Tyr Trp Ile
130         135         140

Ile Ile Glu Leu Lys His Lys Ala Arg Glu Lys Pro Tyr Asp Ser Lys
145         150         155         160

Ser Leu Arg Thr Ala Leu Gln Lys Glu Ile Thr Thr Arg Tyr Gln Leu
165         170         175

Asp Pro Lys Phe Ile Thr Ser Ile Leu Tyr Glu Asn Asn Val Ile Thr
180         185         190

Ile Asp Leu Val Gln Asn Ser Ser Gln Lys Thr Gln Asn Asp Val Asp
195         200         205

Ile Ala Asp Val Ala Tyr Tyr Phe Glu Lys Asp Val Lys Gly Glu Ser
210         215         220

Leu Phe His Ser Lys Lys Met Asp Leu Thr Val Asn Gly Glu Gln Leu
225         230         235         240

Asp Leu Asp Pro Gly Gln Thr Leu Ile Tyr Tyr Val Asp Glu Lys Ala
245         250         255

Pro Glu Phe Ser Met Gln Gly Leu Lys Ala Gly Val Ile Ala Val Ile
260         265         270

Val Val Val Val Ile Ala Val Val Ala Gly Ile Val Val Leu Val Ile
275         280         285
    
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Ser Arg Lys Lys Arg Met Ala Lys Tyr Glu Lys Ala Glu Ile Lys Glu
290 295 300

Met Gly Glu Met His Arg Glu Leu Asn Ala
305 310

<210> 83

<211> 720

<212> PRT

<213> Homo sapiens

<400> 83

Lys Ser Val Trp Lys Gly Gly Leu Arg Glu Arg Asp Pro Arg Gly Thr
1 5 10 15

Arg Gly Gly Gly Arg Arg Gly Thr Gly Ser Gln Pro Ala Leu Cys Leu
20 25 30

Gly Ala Gly Arg Gln Glu Gly Ala Met Ala Leu Asp Gly Ile Arg Met
35 40 45

Pro Asp Gly Cys Tyr Ala Asp Gly Thr Trp Glu Leu Ser Val His Val
50 55 60

Thr Asp Leu Asn Arg Asp Ile Thr Leu Arg Val Thr Gly Glu Val His
65 70 75 80

Ile Gly Gly Val Met Leu Lys Leu Val Glu Lys Leu Asp Val Lys Lys
85 90 95

Asp Trp Ser Asp His Ala Leu Trp Trp Glu Lys Lys Arg Thr Trp Leu
100 105 110

Leu Lys Thr His Trp Thr Leu Asp Lys Tyr Gly Ile Gln Ala Asp Ala
115 120 125

Lys Leu Gln Phe Thr Pro Gln His Lys Leu Leu Arg Leu Gln Leu Pro
130 135 140

Asn Met Lys Tyr Val Lys Val Lys Val Asn Phe Ser Asp Arg Val Phe
145 150 155 160

Lys Ala Val Ser Asp Ile Cys Lys Thr Phe Asn Ile Arg His Pro Glu
165 170 175

Glu Leu Ser Leu Leu Lys Lys Pro Arg Asp Pro Thr Lys Lys Lys Lys
180 185 190

Lys Lys Leu Asp Asp Gln Ser Glu Asp Glu Ala Leu Glu Leu Glu Gly
195 200 205

Pro Leu Ile Thr Pro Gly Ser Gly Ser Ile Tyr Ser Ser Pro Gly Leu
210 215 220

Tyr Ser Lys Thr Met Thr Pro Thr Tyr Asp Ala His Asp Gly Ser Pro
225 230 235 240

Leu Ser Pro Thr Ser Ala Trp Phe Gly Asp Ser Ala Leu Ser Glu Gly

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245	250	255
Asn Pro Gly Ile Leu Ala Val Ser Gln Pro Ile Thr Ser Pro Glu Ile		
260	265	270
Leu Ala Lys Met Phe Lys Pro Gln Ala Leu Leu Asp Lys Ala Lys Ile		
275	280	285
Asn Gln Gly Trp Leu Asp Ser Ser Arg Ser Leu Met Glu Gln Asp Val		
290	295	300
Lys Glu Asn Glu Ala Leu Leu Leu Arg Phe Lys Tyr Tyr Ser Phe Phe		
305	310	315
320		
Asp Leu Asn Pro Lys Tyr Asp Ala Ile Arg Ile Asn Gln Leu Tyr Glu		
325	330	335
Gln Ala Lys Trp Ala Ile Leu Leu Glu Glu Ile Glu Cys Thr Glu Glu		
340	345	350
Glu Met Met Met Phe Ala Ala Leu Gln Tyr His Ile Asn Lys Leu Ser		
355	360	365
Ile Met Thr Ser Glu Asn His Leu Asn Asn Ser Asp Lys Glu Val Asp		
370	375	380
Glu Val Asp Ala Ala Leu Ser Asp Leu Glu Ile Thr Leu Glu Gly Gly		
385	390	395
400		
Lys Thr Ser Thr Ile Leu Gly Asp Ile Thr Ser Ile Pro Glu Leu Ala		
405	410	415
Asp Tyr Ile Lys Val Phe Lys Pro Lys Lys Leu Thr Leu Lys Gly Tyr		
420	425	430
Lys Gln Tyr Trp Cys Thr Phe Lys Asp Thr Ser Ile Ser Cys Tyr Lys		
435	440	445
Ser Lys Glu Glu Ser Ser Gly Thr Pro Ala His Gln Met Asn Leu Arg		
450	455	460
Gly Cys Glu Val Thr Pro Asp Val Asn Ile Ser Gly Gln Lys Phe Asn		
465	470	475
480		
Ile Lys Leu Leu Ile Pro Val Ala Glu Gly Met Asn Glu Ile Trp Leu		
485	490	495
Arg Cys Asp Asn Glu Lys Gln Tyr Ala His Trp Met Ala Ala Cys Arg		
500	505	510
Leu Ala Ser Lys Gly Lys Thr Met Ala Asp Ser Ser Tyr Asn Leu Glu		
515	520	525
Val Gln Asn Ile Leu Ser Phe Leu Lys Met Gln His Leu Asn Pro Asp		
530	535	540
Pro Gln Leu Ile Pro Glu Gln Ile Thr Thr Asp Ile Thr Pro Glu Cys		
545	550	555
560		
Leu Val Ser Pro Arg Tyr Leu Lys Lys Tyr Lys Asn Lys Gln Ile Thr		

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	565		570		575
Ala Arg Ile Leu Glu Ala His Gln Asn Val Ala Gln Met Ser Leu Ile	580		585		590
Glu Ala Lys Met Arg Phe Ile Gln Ala Trp Gln Ser Leu Pro Glu Phe	595		600		605
Gly Ile Thr His Phe Ile Ala Arg Phe Gln Gly Gly Lys Lys Glu Glu	610		615		620
Leu Ile Gly Ile Ala Tyr Asn Arg Leu Ile Arg Met Asp Ala Ser Thr	625		630		635
Gly Asp Ala Ile Lys Thr Trp Arg Phe Ser Asn Met Lys Gln Trp Asn	645		650		655
Val Asn Trp Glu Ile Lys Met Val Thr Val Glu Phe Ala Asp Glu Val	660		665		670
Arg Leu Ser Phe Ile Cys Thr Glu Val Asp Cys Lys Val Val His Glu	675		680		685
Phe Ile Gly Gly Tyr Ile Phe Leu Ser Thr Arg Ala Lys Asp Gln Asn	690		695		700
Glu Ser Leu Asp Glu Glu Met Phe Tyr Lys Leu Thr Ser Gly Trp Val	705		710		715
					720
<210>	84				
<211>	582				
<212>	PRT				
<213>	Homo sapiens				
<400>	84				
Met Ser Pro Ala Pro Arg Pro Pro Arg Cys Leu Leu Leu Pro Leu Leu	1	5	10		15
Thr Leu Gly Thr Ala Leu Ala Ser Leu Gly Ser Ala Gln Ser Ser Ser	20		25		30
Phe Ser Pro Glu Ala Trp Leu Gln Gln Tyr Gly Tyr Leu Pro Pro Gly	35		40		45
Asp Leu Arg Thr His Thr Gln Arg Ser Pro Gln Ser Leu Ser Ala Ala	50		55		60
Ile Ala Ala Met Gln Lys Phe Tyr Gly Leu Gln Val Thr Gly Lys Ala	65		70		75
Asp Ala Asp Thr Met Lys Ala Met Arg Arg Pro Arg Cys Gly Val Pro	85		90		95
Asp Lys Phe Gly Ala Glu Ile Lys Ala Asn Val Arg Arg Lys Arg Tyr	100		105		110
Ala Ile Gln Gly Leu Lys Trp Gln His Asn Glu Ile Thr Phe Cys Ile	115		120		125

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Gln	Asn	Tyr	Thr	Pro	Lys	Val	Gly	Glu	Tyr	Ala	Thr	Tyr	Glu	Ala	Ile	130	135	140
Arg	Lys	Ala	Phe	Arg	Val	Trp	Glu	Ser	Ala	Thr	Pro	Leu	Arg	Phe	Arg	145	150	155
Glu	Val	Pro	Tyr	Ala	Tyr	Ile	Arg	Glu	Gly	His	Glu	Lys	Gln	Ala	Asp	165	170	175
Ile	Met	Ile	Phe	Phe	Ala	Glu	Gly	Phe	His	Gly	Asp	Ser	Thr	Pro	Phe	180	185	190
Asp	Gly	Glu	Gly	Gly	Phe	Leu	Ala	His	Ala	Tyr	Phe	Pro	Gly	Pro	Asn	195	200	205
Ile	Gly	Gly	Asp	Thr	His	Phe	Asp	Ser	Ala	Glu	Pro	Trp	Thr	Val	Arg	210	215	220
Asn	Glu	Asp	Leu	Asn	Gly	Asn	Asp	Ile	Phe	Leu	Val	Ala	Val	His	Glu	225	230	235
Leu	Gly	His	Ala	Leu	Gly	Leu	Glu	His	Ser	Ser	Asp	Pro	Ser	Ala	Ile	245	250	255
Met	Ala	Pro	Phe	Tyr	Gln	Trp	Met	Asp	Thr	Glu	Asn	Phe	Val	Leu	Pro	260	265	270
Asp	Asp	Asp	Arg	Arg	Gly	Ile	Gln	Gln	Leu	Tyr	Gly	Gly	Glu	Ser	Gly	275	280	285
Phe	Pro	Thr	Lys	Met	Pro	Pro	Gln	Pro	Arg	Thr	Thr	Ser	Arg	Pro	Ser	290	295	300
Val	Pro	Asp	Lys	Pro	Lys	Asn	Pro	Thr	Tyr	Gly	Pro	Asn	Ile	Cys	Asp	305	310	315
Gly	Asn	Phe	Asp	Thr	Val	Ala	Met	Leu	Arg	Gly	Glu	Met	Phe	Val	Phe	325	330	335
Lys	Glu	Arg	Trp	Phe	Trp	Arg	Val	Arg	Asn	Asn	Gln	Val	Met	Asp	Gly	340	345	350
Tyr	Pro	Met	Pro	Ile	Gly	Gln	Phe	Trp	Arg	Gly	Leu	Pro	Ala	Ser	Ile	355	360	365
Asn	Thr	Ala	Tyr	Glu	Arg	Lys	Asp	Gly	Lys	Phe	Val	Phe	Phe	Lys	Gly	370	375	380
Asp	Lys	His	Trp	Val	Phe	Asp	Glu	Ala	Ser	Leu	Glu	Pro	Gly	Tyr	Pro	385	390	395
Lys	His	Ile	Lys	Glu	Leu	Gly	Arg	Gly	Leu	Pro	Thr	Asp	Lys	Ile	Asp	405	410	415
Ala	Ala	Leu	Phe	Trp	Met	Pro	Asn	Gly	Lys	Thr	Tyr	Phe	Phe	Arg	Gly	420	425	430
Asn	Lys	Tyr	Tyr	Arg	Phe	Asn	Glu	Glu	Leu	Arg	Ala	Val	Asp	Ser	Glu	435	440	445

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Tyr Pro Lys Asn Ile Lys Val Trp Glu Gly Ile Pro Glu Ser Pro Arg
450 455 460

Gly Ser Phe Met Gly Ser Asp Glu Val Phe Thr Tyr Phe Tyr Lys Gly
465 470 475 480

Asn Lys Tyr Trp Lys Phe Asn Asn Gln Lys Leu Lys Val Glu Pro Gly
485 490 495

Tyr Pro Lys Ser Ala Leu Arg Asp Trp Met Gly Cys Pro Ser Gly Gly
500 505 510

Arg Pro Asp Glu Gly Thr Glu Glu Glu Thr Glu Val Ile Ile Ile Glu
515 520 525

Val Asp Glu Glu Gly Gly Gly Ala Val Ser Ala Ala Ala Val Val Leu
530 535 540

Pro Val Leu Leu Leu Leu Leu Val Leu Ala Val Gly Leu Ala Val Phe
545 550 555 560

Phe Phe Arg Arg His Gly Thr Pro Arg Arg Leu Leu Tyr Cys Gln Arg
565 570 575

Ser Leu Leu Asp Lys Val
580

<210> 85

<211> 1246

<212> PRT

<213> Homo sapiens

<400> 85

Met Leu Ala Ser Ser Ser Arg Ile Arg Ala Ala Trp Thr Arg Ala Leu
1 5 10 15

Leu Leu Pro Leu Leu Leu Ala Gly Pro Val Gly Cys Leu Ser Arg Gln
20 25 30

Glu Leu Phe Pro Phe Gly Pro Gly Gln Gly Asp Leu Glu Leu Glu Asp
35 40 45

Gly Asp Asp Phe Val Ser Pro Ala Leu Glu Leu Ser Gly Ala Leu Arg
50 55 60

Phe Tyr Asp Arg Ser Asp Ile Asp Ala Val Tyr Val Thr Thr Asn Gly
65 70 75 80

Ile Ile Ala Thr Ser Glu Pro Pro Ala Lys Glu Ser His Pro Gly Leu
85 90 95

Phe Pro Pro Thr Phe Gly Ala Val Ala Pro Phe Leu Ala Asp Leu Asp
100 105 110

Thr Thr Asp Gly Leu Gly Lys Val Tyr Tyr Arg Glu Asp Leu Ser Pro
115 120 125

Ser Ile Thr Gln Arg Ala Ala Glu Cys Val His Arg Gly Phe Pro Glu
130 135 140

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Ile Ser Phe Gln Pro Ser Ser Ala Val Val Val Thr Trp Glu Ser Val
145 150 155 160

Ala Pro Tyr Gln Gly Pro Ser Arg Asp Pro Asp Gln Lys Gly Lys Arg
165 170 175

Asn Thr Phe Gln Ala Val Leu Ala Ser Ser Asp Ser Ser Ser Tyr Ala
180 185 190

Ile Phe Leu Tyr Pro Glu Asp Gly Leu Gln Phe His Thr Thr Phe Ser
195 200 205

Lys Lys Glu Asn Asn Gln Val Pro Ala Val Val Ala Phe Ser Gln Gly
210 215 220

Ser Val Gly Phe Leu Trp Lys Ser Asn Gly Ala Tyr Asn Ile Phe Ala
225 230 235 240

Asn Asp Arg Glu Ser Ile Glu Asn Leu Ala Lys Ser Ser Asn Ser Gly
245 250 255

Gln Gln Gly Val Trp Val Phe Glu Ile Gly Ser Pro Ala Thr Thr Asn
260 265 270

Gly Val Val Pro Ala Asp Val Ile Leu Gly Thr Glu Asp Gly Ala Glu
275 280 285

Tyr Asp Asp Glu Asp Glu Asp Tyr Asp Leu Ala Thr Thr Arg Leu Gly
290 295 300

Leu Glu Asp Val Gly Thr Thr Pro Phe Ser Tyr Lys Ala Leu Arg Arg
305 310 315 320

Gly Gly Ala Asp Thr Tyr Ser Val Pro Ser Val Leu Ser Pro Arg Arg
325 330 335

Ala Ala Thr Glu Arg Pro Leu Gly Pro Pro Thr Glu Arg Thr Arg Ser
340 345 350

Phe Gln Leu Ala Val Glu Thr Phe His Gln Gln His Pro Gln Val Ile
355 360 365

Asp Val Asp Glu Val Glu Glu Thr Gly Val Val Phe Ser Tyr Asn Thr
370 375 380

Asp Ser Arg Gln Thr Cys Ala Asn Asn Arg His Gln Cys Ser Val His
385 390 395 400

Ala Glu Cys Arg Asp Tyr Ala Thr Gly Phe Cys Cys Ser Cys Val Ala
405 410 415

Gly Tyr Thr Gly Asn Gly Arg Gln Cys Val Ala Glu Gly Ser Pro Gln
420 425 430

Arg Val Asn Gly Lys Val Lys Gly Arg Ile Phe Val Gly Ser Ser Gln
435 440 445

Val Pro Ile Val Phe Glu Asn Thr Asp Leu His Ser Tyr Val Val Met
450 455 460

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Asn	His	Gly	Arg	Ser	Tyr	Thr	Ala	Ile	Ser	Thr	Ile	Pro	Glu	Thr	Val	465	470	475	480
Gly	Tyr	Ser	Leu	Leu	Pro	Leu	Ala	Pro	Val	Gly	Gly	Ile	Ile	Gly	Trp	485	490	495	
Met	Phe	Ala	Val	Glu	Gln	Asp	Gly	Phe	Lys	Asn	Gly	Phe	Ser	Ile	Thr	500	505	510	
Gly	Gly	Glu	Phe	Thr	Arg	Gln	Ala	Glu	Val	Thr	Phe	Val	Gly	His	Pro	515	520	525	
Gly	Asn	Leu	Val	Ile	Lys	Gln	Arg	Phe	Ser	Gly	Ile	Asp	Glu	His	Gly	530	535	540	
His	Leu	Thr	Ile	Asp	Thr	Glu	Leu	Glu	Gly	Arg	Val	Pro	Gln	Ile	Pro	545	550	555	560
Phe	Gly	Ser	Ser	Val	His	Ile	Glu	Pro	Tyr	Thr	Glu	Leu	Tyr	His	Tyr	565	570	575	
Ser	Thr	Ser	Val	Ile	Thr	Ser	Ser	Ser	Thr	Arg	Glu	Tyr	Thr	Val	Thr	580	585	590	
Glu	Pro	Glu	Arg	Asp	Gly	Ala	Ser	Pro	Ser	Arg	Ile	Tyr	Thr	Tyr	Gln	595	600	605	
Trp	Arg	Gln	Thr	Ile	Thr	Phe	Gln	Glu	Cys	Val	His	Asp	Asp	Ser	Arg	610	615	620	
Pro	Ala	Leu	Pro	Ser	Thr	Gln	Gln	Leu	Ser	Val	Asp	Ser	Val	Phe	Val	625	630	635	640
Leu	Tyr	Asn	Gln	Glu	Glu	Lys	Ile	Leu	Arg	Tyr	Ala	Phe	Ser	Asn	Ser	645	650	655	
Ile	Gly	Pro	Val	Arg	Glu	Gly	Ser	Pro	Asp	Ala	Leu	Gln	Asn	Pro	Cys	660	665	670	
Tyr	Ile	Gly	Thr	His	Gly	Cys	Asp	Thr	Asn	Ala	Ala	Cys	Arg	Pro	Gly	675	680	685	
Pro	Arg	Thr	Gln	Phe	Thr	Cys	Glu	Cys	Ser	Ile	Gly	Phe	Arg	Gly	Asp	690	695	700	
Gly	Arg	Thr	Cys	Tyr	Asp	Ile	Asp	Glu	Cys	Ser	Glu	Gln	Pro	Ser	Val	705	710	715	720
Cys	Gly	Ser	His	Thr	Ile	Cys	Asn	Asn	His	Pro	Gly	Thr	Phe	Arg	Cys	725	730	735	
Glu	Cys	Val	Glu	Gly	Tyr	Gln	Phe	Ser	Asp	Glu	Gly	Thr	Cys	Val	Ala	740	745	750	
Val	Val	Asp	Gln	Arg	Pro	Ile	Asn	Tyr	Cys	Glu	Thr	Gly	Leu	His	Asn	755	760	765	
Cys	Asp	Ile	Pro	Gln	Arg	Ala	Gln	Cys	Ile	Tyr	Thr	Gly	Gly	Ser	Ser	770	775	780	

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Tyr	Thr	Cys	Ser	Cys	Leu	Pro	Gly	Phe	Ser	Gly	Asp	Gly	Gln	Ala	Cys	
785					790					795					800	
Gln	Asp	Val	Asp	Glu	Cys	Gln	Pro	Ser	Arg	Cys	His	Pro	Asp	Ala	Phe	
				805					810					815		
Cys	Tyr	Asn	Thr	Pro	Gly	Ser	Phe	Thr	Cys	Gln	Cys	Lys	Pro	Gly	Tyr	
			820					825					830			
Gln	Gly	Asp	Gly	Phe	Arg	Cys	Val	Pro	Gly	Glu	Val	Glu	Lys	Thr	Arg	
		835					840					845				
Cys	Gln	His	Glu	Arg	Glu	His	Ile	Leu	Gly	Ala	Ala	Gly	Ala	Thr	Asp	
		850					855					860				
Pro	Gln	Arg	Pro	Ile	Pro	Pro	Gly	Leu	Phe	Val	Pro	Glu	Cys	Asp	Ala	
					870					875					880	
His	Gly	His	Tyr	Ala	Pro	Thr	Gln	Cys	His	Gly	Ser	Thr	Gly	Tyr	Cys	
				885				890						895		
Trp	Cys	Val	Asp	Arg	Asp	Gly	Arg	Glu	Val	Glu	Gly	Thr	Arg	Thr	Arg	
			900					905					910			
Pro	Gly	Met	Thr	Pro	Pro	Cys	Leu	Ser	Thr	Val	Ala	Pro	Pro	Ile	His	
		915					920					925				
Gln	Gly	Pro	Ala	Val	Pro	Thr	Ala	Val	Ile	Pro	Leu	Pro	Pro	Gly	Thr	
		930					935				940					
His	Leu	Leu	Phe	Ala	Gln	Thr	Gly	Lys	Ile	Glu	Arg	Leu	Pro	Leu	Glu	
					950					955					960	
Gly	Asn	Thr	Met	Arg	Lys	Thr	Glu	Ala	Lys	Ala	Phe	Leu	His	Val	Pro	
				965					970					975		
Ala	Lys	Val	Ile	Ile	Gly	Leu	Ala	Phe	Asp	Cys	Val	Asp	Lys	Met	Val	
			980					985					990			
Tyr	Trp	Thr	Asp	Ile	Thr	Glu	Pro	Ser	Ile	Gly	Arg	Ala	Ser	Leu	His	
			995				1000					1005				
Gly	Gly	Glu	Pro	Thr	Thr	Ile	Ile	Arg	Gln	Asp	Leu	Gly	Ser	Pro		
	1010					1015					1020					
Glu	Gly	Ile	Ala	Val	Asp	His	Leu	Gly	Arg	Asn	Ile	Phe	Trp	Thr		
	1025					1030					1035					
Asp	Ser	Asn	Leu	Asp	Arg	Ile	Glu	Val	Ala	Lys	Leu	Asp	Gly	Thr		
	1040					1045					1050					
Gln	Arg	Arg	Val	Leu	Phe	Glu	Thr	Asp	Leu	Val	Asn	Pro	Arg	Gly		
	1055					1060					1065					
Ile	Val	Thr	Asp	Ser	Val	Arg	Gly	Asn	Leu	Tyr	Trp	Thr	Asp	Trp		
	1070					1075					1080					
Asn	Arg	Asp	Asn	Pro	Lys	Ile	Glu	Thr	Ser	Tyr	Met	Asp	Gly	Thr		
	1085					1090					1095					

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Asn Arg Arg Ile Leu Val Gln Asp Asp Leu Gly Leu Pro Asn Gly
 1100 1105 1110

Leu His Phe Asp Ala Phe Ser Ser Gln Leu Cys Trp Val Asp Ala
 1115 1120 1125

Gly Thr Asn Arg Ala Glu Cys Leu Asn Pro Ser Gln Pro Ser Arg
 1130 1135 1140

Arg Lys Ala Leu Glu Gly Leu Gln Tyr Pro Phe Ala Val Thr Ser
 1145 1150 1155

Tyr Gly Lys Asn Leu Tyr Phe Thr Asp Trp Lys Met Asn Ser Val
 1160 1165 1170

Val Ala Leu Asp Leu Ala Ile Ser Lys Glu Thr Asp Ala Phe Gln
 1175 1180 1185

Pro His Lys Gln Thr Arg Leu Tyr Gly Ile Thr Thr Ala Leu Ser
 1190 1195 1200

Gln Cys Pro Gln Gly His Asn Tyr Cys Ser Val Asn Asn Gly Gly
 1205 1210 1215

Cys Thr His Leu Cys Leu Ala Thr Pro Gly Ser Arg Thr Cys Arg
 1220 1225 1230

Cys Pro Asp Asn Thr Leu Gly Val Asp Cys Ile Glu Arg
 1235 1240 1245

<210> 86
 <211> 423
 <212> PRT
 <213> Homo sapiens

<400> 86

Met Ala Met Val Val Ser Ser Trp Arg Asp Pro Gln Asp Asp Val Ala
 1 5 10 15

Gly Gly Asn Pro Gly Gly Pro Asn Pro Ala Ala Gln Ala Ala Arg Gly
 20 25 30

Gly Gly Gly Gly Ala Gly Glu Gln Gln Gln Gln Ala Gly Ser Gly Ala
 35 40 45

Pro His Thr Pro Gln Thr Pro Gly Gln Pro Gly Ala Pro Ala Thr Pro
 50 55 60

Gly Thr Ala Gly Asp Lys Gly Gln Gly Pro Pro Gly Ser Gly Gln Ser
 65 70 75 80

Gln Gln His Ile Glu Cys Val Val Cys Gly Asp Lys Ser Ser Gly Lys
 85 90 95

His Tyr Gly Gln Phe Thr Cys Glu Gly Cys Lys Ser Phe Phe Lys Arg
 100 105 110

Ser Val Arg Arg Asn Leu Thr Tyr Thr Cys Arg Ala Asn Arg Asn Cys

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115	120	125
Pro Ile Asp Gln His His Arg Asn Gln Cys Gln Tyr Cys Arg Leu Lys 130 135 140		
Lys Cys Leu Lys Val Gly Met Arg Arg Glu Ala Val Gln Arg Gly Arg 145 150 155 160		
Met Pro Pro Thr Gln Pro Asn Pro Gly Gln Tyr Ala Leu Thr Asn Gly 165 170 175		
Asp Pro Leu Asn Gly His Cys Tyr Leu Ser Gly Tyr Ile Ser Leu Leu 180 185 190		
Leu Arg Ala Glu Pro Tyr Pro Thr Ser Arg Tyr Gly Ser Gln Cys Met 195 200 205		
Gln Pro Asn Asn Ile Met Gly Ile Glu Asn Ile Cys Glu Leu Ala Ala 210 215 220		
Arg Leu Leu Phe Ser Ala Val Glu Trp Ala Arg Asn Ile Pro Phe Phe 225 230 235 240		
Pro Asp Leu Gln Ile Thr Asp Gln Val Ser Leu Leu Arg Leu Thr Trp 245 250 255		
Ser Glu Leu Phe Val Leu Asn Ala Ala Gln Cys Ser Met Pro Leu His 260 265 270		
Val Ala Pro Leu Leu Ala Ala Ala Gly Leu His Ala Ser Pro Met Ser 275 280 285		
Ala Asp Arg Val Val Ala Phe Met Asp His Ile Arg Ile Phe Gln Glu 290 295 300		
Gln Val Glu Lys Leu Lys Ala Leu His Val Asp Ser Ala Glu Tyr Ser 305 310 315 320		
Cys Leu Lys Ala Ile Val Leu Phe Thr Ser Asp Ala Cys Gly Leu Ser 325 330 335		
Asp Ala Ala His Ile Glu Ser Leu Gln Glu Lys Ser Gln Cys Ala Leu 340 345 350		
Glu Glu Tyr Val Arg Ser Gln Tyr Pro Asn Gln Pro Ser Arg Phe Gly 355 360 365		
Lys Leu Leu Leu Arg Leu Pro Ser Leu Arg Thr Val Ser Ser Ser Val 370 375 380		
Ile Glu Gln Leu Phe Phe Val Arg Leu Val Gly Lys Thr Pro Ile Glu 385 390 395 400		
Thr Leu Ile Arg Asp Met Leu Leu Ser Gly Ser Ser Phe Asn Trp Pro 405 410 415		
Tyr Met Ser Ile Gln Cys Ser 420		

<400> 87

Met	Ile	Trp	Tyr	Ile	Leu	Ile	Ile	Gly	Ile	Leu	Leu	Pro	Gln	Ser	Leu	1	5	10	15
Ala	His	Pro	Gly	Phe	Phe	Thr	Ser	Ile	Gly	Gln	Met	Thr	Asp	Leu	Ile	20	25	30	
His	Thr	Glu	Lys	Asp	Leu	Val	Thr	Ser	Leu	Lys	Asp	Tyr	Ile	Lys	Ala	35	40	45	
Glu	Glu	Asp	Lys	Leu	Glu	Gln	Ile	Lys	Lys	Trp	Ala	Glu	Lys	Leu	Asp	50	55	60	
Arg	Leu	Thr	Ser	Thr	Ala	Thr	Lys	Asp	Pro	Glu	Gly	Phe	Val	Gly	His	65	70	75	80
Pro	Val	Asn	Ala	Phe	Lys	Leu	Met	Lys	Arg	Leu	Asn	Thr	Glu	Trp	Ser	85	90	95	
Glu	Leu	Glu	Asn	Leu	Val	Leu	Lys	Asp	Met	Ser	Asp	Gly	Phe	Ile	Ser	100	105	110	
Asn	Leu	Thr	Ile	Gln	Arg	Pro	Val	Leu	Ser	Asn	Asp	Glu	Asp	Gln	Val	115	120	125	
Gly	Ala	Ala	Lys	Ala	Leu	Leu	Arg	Leu	Gln	Asp	Thr	Tyr	Asn	Leu	Asp	130	135	140	
Thr	Asp	Thr	Ile	Ser	Lys	Gly	Asn	Leu	Pro	Gly	Val	Lys	His	Lys	Ser	145	150	155	160
Phe	Leu	Thr	Ala	Glu	Asp	Cys	Phe	Glu	Leu	Gly	Lys	Val	Ala	Tyr	Thr	165	170	175	
Glu	Ala	Asp	Tyr	Tyr	His	Thr	Glu	Leu	Trp	Met	Glu	Gln	Ala	Leu	Arg	180	185	190	
Gln	Leu	Asp	Glu	Gly	Glu	Ile	Ser	Thr	Ile	Asp	Lys	Val	Ser	Val	Leu	195	200	205	
Asp	Tyr	Leu	Ser	Tyr	Ala	Val	Tyr	Gln	Gln	Gly	Asp	Leu	Asp	Lys	Ala	210	215	220	
Leu	Leu	Leu	Thr	Lys	Lys	Leu	Leu	Glu	Leu	Asp	Pro	Glu	His	Gln	Arg	225	230	235	240
Ala	Asn	Gly	Asn	Leu	Lys	Tyr	Phe	Glu	Tyr	Ile	Met	Ala	Lys	Glu	Lys	245	250	255	
Asp	Val	Asn	Lys	Ser	Ala	Ser	Asp	Asp	Gln	Ser	Asp	Gln	Lys	Thr	Thr	260	265	270	
Pro	Lys	Lys	Lys	Gly	Val	Ala	Val	Asp	Tyr	Leu	Pro	Glu	Arg	Gln	Lys	275	280	285	

Tyr Glu Met Leu Cys Arg Gly Glu Gly Ile Lys Met Thr Pro Arg Arg
 290 295 300
 Gln Lys Lys Leu Phe Cys Arg Tyr His Asp Gly Asn Arg Asn Pro Lys
 305 310 315 320
 Phe Ile Leu Ala Pro Ala Lys Gln Glu Asp Glu Trp Asp Lys Pro Arg
 325 330 335
 Ile Ile Arg Phe His Asp Ile Ile Ser Asp Ala Glu Ile Glu Ile Val
 340 345 350
 Lys Asp Leu Ala Lys Pro Arg Leu Ser Arg Ala Thr Val His Asp Pro
 355 360 365
 Glu Thr Gly Lys Leu Thr Thr Ala Gln Tyr Arg Val Ser Lys Ser Ala
 370 375 380
 Trp Leu Ser Gly Tyr Glu Asn Pro Val Val Ser Arg Ile Asn Met Arg
 385 390 395 400
 Ile Gln Asp Leu Thr Gly Leu Asp Val Ser Thr Ala Glu Glu Leu Gln
 405 410 415
 Val Ala Asn Tyr Gly Val Gly Gly Gln Tyr Glu Pro His Phe Asp Phe
 420 425 430
 Ala Arg Lys Asp Glu Pro Asp Ala Phe Lys Glu Leu Gly Thr Gly Asn
 435 440 445
 Arg Ile Ala Thr Trp Leu Phe Tyr Met Ser Asp Val Ser Ala Gly Gly
 450 455 460
 Ala Thr Val Phe Pro Glu Val Gly Ala Ser Val Trp Pro Lys Lys Gly
 465 470 475 480
 Thr Ala Val Phe Trp Tyr Asn Leu Phe Ala Ser Gly Glu Gly Asp Tyr
 485 490 495
 Ser Thr Arg His Ala Ala Cys Pro Val Leu Val Gly Asn Lys Trp Val
 500 505 510
 Ser Asn Lys Trp Leu His Glu Arg Gly Gln Glu Phe Arg Arg Pro Cys
 515 520 525
 Thr Leu Ser Glu Leu Glu
 530
 <210> 88
 <211> 162
 <212> PRT
 <213> Homo sapiens
 <400> 88
 Met Asp Ile Pro Gln Thr Lys Gln Asp Leu Glu Leu Pro Lys Leu Ala
 1 5 10 15
 Gly Thr Trp His Ser Met Ala Met Ala Thr Asn Asn Ile Ser Leu Met
 20 25 30

0070764660

Leu Arg Met Thr Thr Asp Glu Gly Thr Gly Gly Arg Gly Phe Leu Leu

130	135	140
Trp Tyr Ser Gly Arg Ala Thr Ser Gly Ser Glu His Gln Phe Cys Gly		
145	150	155 160
Gly Arg Leu Glu Lys Ala Gln Gly Thr Leu Thr Thr Pro Asn Trp Pro		
	165	170 175
Glu Ser Asp Tyr Pro Pro Gly Ile Ser Cys Ser Trp His Ile Ile Ala		
	180	185 190
Pro Pro Asp Gln Val Ile Ala Leu Thr Phe Glu Lys Phe Asp Leu Glu		
	195	200 205
Pro Asp Thr Tyr Cys Arg Tyr Asp Ser Val Ser Val Phe Asn Gly Ala		
	210	215 220
Val Ser Asp Asp Ser Arg Arg Leu Gly Lys Phe Cys Gly Asp Ala Val		
	225	230 235 240
Pro Gly Ser Ile Ser Ser Glu Gly Asn Glu Leu Leu Val Gln Phe Val		
	245	250 255
Ser Asp Leu Ser Val Thr Ala Asp Gly Phe Ser Ala Ser Tyr Lys Thr		
	260	265 270
Leu Pro Arg Gly Thr Ala Lys Glu Gly Gln Gly Pro Gly Pro Lys Arg		
	275	280 285
Gly Thr Glu Pro Lys Val Lys Leu Pro Pro Lys Ser Gln Pro Pro Glu		
	290	295 300
Lys Thr Glu Glu Ser Pro Ser Ala Pro Asp Ala Pro Thr Cys Pro Lys		
	305	310 315 320
Gln Cys Arg Arg Thr Gly Thr Leu Gln Ser Asn Phe Cys Ala Ser Ser		
	325	330 335
Leu Val Val Thr Ala Thr Val Lys Ser Met Val Arg Glu Pro Gly Glu		
	340	345 350
Gly Leu Ala Val Thr Val Ser Leu Ile Gly Ala Tyr Lys Thr Gly Gly		
	355	360 365
Leu Asp Leu Pro Thr Pro Pro Thr Gly Ala Ser Leu Lys Phe Tyr Val		
	370	375 380
Pro Cys Lys Gln Cys Pro Pro Met Lys Lys Gly Val Ser Tyr Leu Leu		
	385	390 395 400
Met Gly Gln Val Glu Glu Asn Arg Gly Pro Val Leu Pro Pro Glu Ser		
	405	410 415
Phe Val Val Leu His Arg Pro Asn Gln Asp Gln Ile Leu Thr Asn Leu		
	420	425 430
Ser Lys Arg Lys Cys Pro Ser Gln Pro Val Arg Ala Ala Ala Ser Gln		
	435	440 445

Asp

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<210> 90
 <211> 1089
 <212> PRT
 <213> Homo sapiens

<400> 90

Met	Gly	Thr	Ser	His	Pro	Ala	Phe	Leu	Val	Leu	Gly	Cys	Leu	Leu	Thr
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Gly	Leu	Ser	Leu	Ile	Leu	Cys	Gln	Leu	Ser	Leu	Pro	Ser	Ile	Leu	Pro
			20				25						30		
Asn	Glu	Asn	Glu	Lys	Val	Val	Gln	Leu	Asn	Ser	Ser	Phe	Ser	Leu	Arg
	35						40					45			
Cys	Phe	Gly	Glu	Ser	Glu	Val	Ser	Trp	Gln	Tyr	Pro	Met	Ser	Glu	Glu
	50					55					60				
Glu	Ser	Ser	Asp	Val	Glu	Ile	Arg	Asn	Glu	Glu	Asn	Asn	Ser	Gly	Leu
65					70					75					80
Phe	Val	Thr	Val	Leu	Glu	Val	Ser	Ser	Ala	Ser	Ala	Ala	His	Thr	Gly
				85					90					95	
Leu	Tyr	Thr	Cys	Tyr	Tyr	Asn	His	Thr	Gln	Thr	Glu	Glu	Asn	Glu	Leu
			100					105						110	
Glu	Gly	Arg	His	Ile	Tyr	Ile	Tyr	Val	Pro	Asp	Pro	Asp	Val	Ala	Phe
		115					120					125			
Val	Pro	Leu	Gly	Met	Thr	Asp	Tyr	Leu	Val	Ile	Val	Glu	Asp	Asp	Asp
		130				135						140			
Ser	Ala	Ile	Ile	Pro	Cys	Arg	Thr	Thr	Asp	Pro	Glu	Thr	Pro	Val	Thr
145					150					155					160
Leu	His	Asn	Ser	Glu	Gly	Val	Val	Pro	Ala	Ser	Tyr	Asp	Ser	Arg	Gln
				165					170					175	
Gly	Phe	Asn	Gly	Thr	Phe	Thr	Val	Gly	Pro	Tyr	Ile	Cys	Glu	Ala	Thr
		180						185					190		
Val	Lys	Gly	Lys	Lys	Phe	Gln	Thr	Ile	Pro	Phe	Asn	Val	Tyr	Ala	Leu
		195					200					205			
Lys	Ala	Thr	Ser	Glu	Leu	Asp	Leu	Glu	Met	Glu	Ala	Leu	Lys	Thr	Val
	210					215					220				
Tyr	Lys	Ser	Gly	Glu	Thr	Ile	Val	Val	Thr	Cys	Ala	Val	Phe	Asn	Asn
225					230					235					240
Glu	Val	Val	Asp	Leu	Gln	Trp	Thr	Tyr	Pro	Gly	Glu	Val	Lys	Gly	Lys
				245					250					255	
Gly	Ile	Thr	Met	Leu	Glu	Glu	Ile	Lys	Val	Pro	Ser	Ile	Lys	Leu	Val
			260					265					270		

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Tyr Thr Leu Thr Val Pro Glu Ala Thr Val Lys Asp Ser Gly Asp Tyr
 275 280 285
 Glu Cys Ala Ala Arg Gln Ala Thr Arg Glu Val Lys Glu Met Lys Lys
 290 295 300
 Val Thr Ile Ser Val His Glu Lys Gly Phe Ile Glu Ile Lys Pro Thr
 305 310 315 320
 Phe Ser Gln Leu Glu Ala Val Asn Leu His Glu Val Lys His Phe Val
 325 330 335
 Val Glu Val Arg Ala Tyr Pro Pro Pro Arg Ile Ser Trp Leu Lys Asn
 340 345 350
 Asn Leu Thr Leu Ile Glu Asn Leu Thr Glu Ile Thr Thr Asp Val Glu
 355 360 365
 Lys Ile Gln Glu Ile Arg Tyr Arg Ser Lys Leu Lys Leu Ile Arg Ala
 370 375 380
 Lys Glu Glu Asp Ser Gly His Tyr Thr Ile Val Ala Gln Asn Glu Asp
 385 390 395 400
 Ala Val Lys Ser Tyr Thr Phe Glu Leu Leu Thr Gln Val Pro Ser Ser
 405 410 415
 Ile Leu Asp Leu Val Asp Asp His His Gly Ser Thr Gly Gly Gln Thr
 420 425 430
 Val Arg Cys Thr Ala Glu Gly Thr Pro Leu Pro Asp Ile Glu Trp Met
 435 440 445
 Ile Cys Lys Asp Ile Lys Lys Cys Asn Asn Glu Thr Ser Trp Thr Ile
 450 455 460
 Leu Ala Asn Asn Val Ser Asn Ile Ile Thr Glu Ile His Ser Arg Asp
 465 470 475 480
 Arg Ser Thr Val Glu Gly Arg Val Thr Phe Ala Lys Val Glu Glu Thr
 485 490 495
 Ile Ala Val Arg Cys Leu Ala Lys Asn Leu Leu Gly Ala Glu Asn Arg
 500 505 510
 Glu Leu Lys Leu Val Ala Pro Thr Leu Arg Ser Glu Leu Thr Val Ala
 515 520 525
 Ala Ala Val Leu Val Leu Leu Val Ile Val Ile Ile Ser Leu Ile Val
 530 535 540
 Leu Val Val Ile Trp Lys Gln Lys Pro Arg Tyr Glu Ile Arg Trp Arg
 545 550 555 560
 Val Ile Glu Ser Ile Ser Pro Asp Gly His Glu Tyr Ile Tyr Val Asp
 565 570 575
 Pro Met Gln Leu Pro Tyr Asp Ser Arg Trp Glu Phe Pro Arg Asp Gly
 580 585 590

093649 "030" 201E

Leu Val Leu Gly Arg Val Leu Gly Ser Gly Ala Phe Gly Lys Val Val
 595 600 605
 Glu Gly Thr Ala Tyr Gly Leu Ser Arg Ser Gln Pro Val Met Lys Val
 610 615 620
 Ala Val Lys Met Leu Lys Pro Thr Ala Arg Ser Ser Glu Lys Gln Ala
 625 630 635 640
 Leu Met Ser Glu Leu Lys Ile Met Thr His Leu Gly Pro His Leu Asn
 645 650 655
 Ile Val Asn Leu Leu Gly Ala Cys Thr Lys Ser Gly Pro Ile Tyr Ile
 660 665 670
 Ile Thr Glu Tyr Cys Phe Tyr Gly Asp Leu Val Asn Tyr Leu His Lys
 675 680 685
 Asn Arg Asp Ser Phe Leu Ser His His Pro Glu Lys Pro Lys Lys Glu
 690 695 700
 Leu Asp Ile Phe Gly Leu Asn Pro Ala Asp Glu Ser Thr Arg Ser Tyr
 705 710 715 720
 Val Ile Leu Ser Phe Glu Asn Asn Gly Asp Tyr Met Asp Met Lys Gln
 725 730 735
 Ala Asp Thr Thr Gln Tyr Val Pro Met Leu Glu Arg Lys Glu Val Ser
 740 745 750
 Lys Tyr Ser Asp Ile Gln Arg Ser Leu Tyr Asp Arg Pro Ala Ser Tyr
 755 760 765
 Lys Lys Lys Ser Met Leu Asp Ser Glu Val Lys Asn Leu Leu Ser Asp
 770 775 780
 Asp Asn Ser Glu Gly Leu Thr Leu Leu Asp Leu Leu Ser Phe Thr Tyr
 785 790 795 800
 Gln Val Ala Arg Gly Met Glu Phe Leu Ala Ser Lys Asn Cys Val His
 805 810 815
 Arg Asp Leu Ala Ala Arg Asn Val Leu Leu Ala Gln Gly Lys Ile Val
 820 825 830
 Lys Ile Cys Asp Phe Gly Leu Ala Arg Asp Ile Met His Asp Ser Asn
 835 840 845
 Tyr Val Ser Lys Gly Ser Thr Phe Leu Pro Val Lys Trp Met Ala Pro
 850 855 860
 Glu Ser Ile Phe Asp Asn Leu Tyr Thr Thr Leu Ser Asp Val Trp Ser
 865 870 875 880
 Tyr Gly Ile Leu Leu Trp Glu Ile Phe Ser Leu Gly Gly Thr Pro Tyr
 885 890 895
 Pro Gly Met Met Val Asp Ser Thr Phe Tyr Asn Lys Ile Lys Ser Gly
 900 905 910

001949 073104

Tyr Arg Met Ala Lys Pro Asp His Ala Thr Ser Glu Val Tyr Glu Ile
915 920 925

Met Val Lys Cys Trp Asn Ser Glu Pro Glu Lys Arg Pro Ser Phe Tyr
930 935 940

His Leu Ser Glu Ile Val Glu Asn Leu Leu Pro Gly Gln Tyr Lys Lys
945 950 955 960

Ser Tyr Glu Lys Ile His Leu Asp Phe Leu Lys Ser Asp His Pro Ala
965 970 975

Val Ala Arg Met Arg Val Asp Ser Asp Asn Ala Tyr Ile Gly Val Thr
980 985 990

Tyr Lys Asn Glu Glu Asp Lys Leu Lys Asp Trp Glu Gly Gly Leu Asp
995 1000 1005

Glu Gln Arg Leu Ser Ala Asp Ser Gly Tyr Ile Ile Pro Leu Pro
1010 1015 1020

Asp Ile Asp Pro Val Pro Glu Glu Glu Asp Leu Gly Lys Arg Asn
1025 1030 1035

Arg His Ser Ser Gln Thr Ser Glu Glu Ser Ala Ile Glu Thr Gly
1040 1045 1050

Ser Ser Ser Ser Thr Phe Ile Lys Arg Glu Asp Glu Thr Ile Glu
1055 1060 1065

Asp Ile Asp Met Met Asp Asp Ile Gly Ile Asp Ser Ser Asp Leu
1070 1075 1080

Val Glu Asp Ser Phe Leu
1085

<210> 91
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<212> PRT
<213> Homo sapiens

<400> 91

Met Pro Asn Ile Lys Ile Phe Ser Gly Ser Ser His Gln Asp Leu Ser
1 5 10 15

Gln Lys Ile Ala Asp Arg Leu Gly Leu Glu Leu Gly Lys Val Val Thr
20 25 30

Lys Lys Phe Ser Asn Gln Glu Thr Cys Val Glu Ile Gly Glu Ser Val
35 40 45

Arg Gly Glu Asp Val Tyr Ile Val Gln Ser Gly Cys Gly Glu Ile Asn
50 55 60

Asp Asn Leu Met Glu Leu Leu Ile Met Ile Asn Ala Cys Lys Ile Ala
65 70 75 80

Ser Ala Ser Arg Val Thr Ala Val Ile Pro Cys Phe Pro Tyr Ala Arg
85 90 95

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Gln Asp Lys Lys Asp Lys Ser Arg Ala Pro Ile Ser Ala Lys Leu Val
100 105 110

Ala Asn Met Leu Ser Val Ala Gly Ala Asp His Ile Ile Thr Met Asp
115 120 125

Leu His Ala Ser Gln Ile Gln Gly Phe Phe Asp Ile Pro Val Asp Asn
130 135 140

Leu Tyr Ala Glu Pro Ala Val Leu Lys Trp Ile Arg Glu Asn Ile Ser
145 150 155 160

Glu Trp Arg Asn Cys Thr Ile Val Ser Pro Asp Ala Gly Gly Ala Lys
165 170 175

Arg Val Thr Ser Ile Ala Asp Arg Leu Asn Val Asp Phe Ala Leu Ile
180 185 190

His Lys Glu Arg Lys Lys Ala Asn Glu Val Asp Arg Met Val Leu Val
195 200 205

Gly Asp Val Lys Asp Arg Val Ala Ile Leu Val Asp Asp Met Ala Asp
210 215 220

Thr Cys Gly Thr Ile Cys His Ala Ala Asp Lys Leu Leu Ser Ala Gly
225 230 235 240

Ala Thr Arg Val Tyr Ala Ile Leu Thr His Gly Ile Phe Ser Gly Pro
245 250 255

Ala Ile Ser Arg Ile Asn Asn Ala Cys Phe Glu Ala Val Val Val Thr
260 265 270

Asn Thr Ile Pro Gln Glu Asp Lys Met Lys His Cys Ser Lys Ile Gln
275 280 285

Val Ile Asp Ile Ser Met Ile Leu Ala Glu Ala Ile Arg Arg Thr His
290 295 300

Asn Gly Glu Ser Val Ser Tyr Leu Phe Ser His Val Pro Leu
305 310 315

<210> 92
<211> 318
<212> PRT
<213> Homo sapiens

<400> 92

Met Pro Asn Ile Val Leu Phe Ser Gly Ser Ser His Gln Asp Leu Ser
1 5 10 15

Gln Arg Val Ala Asp Arg Leu Gly Leu Glu Leu Gly Lys Val Val Thr
20 25 30

Lys Lys Phe Ser Asn Gln Glu Thr Ser Val Glu Ile Gly Glu Ser Val
35 40 45

Arg Gly Glu Asp Val Tyr Ile Ile Gln Ser Gly Cys Gly Glu Ile Asn

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Met Ala Ala Ala Ala Ala Ala Gly Glu Ala Arg Arg Val Leu Val Tyr^r
 1 5 10 15

Gly Gly Arg Gly Ala Leu Gly Ser Arg Cys Val Gln Ala Phe Arg Ala
 20 25 30

Arg Asn Trp Trp Val Ala Ser Val Asp Val Val Glu Asn Glu Glu Ala
 35 40 45

Ser Ala Thr Ile Ile Val Lys Met Thr Asp Ser Phe Thr Glu Gln Ala
 50 55 60

Asp Gln Val Thr Ala Glu Val Gly Lys Leu Leu Gly Glu Glu Lys Val
 65 70 75 80

Asp Ala Ile Leu Cys Val Ala Gly Gly Trp Ala Gly Gly Asn Ala Lys
 85 90 95

Ser Lys Ser Leu Phe Lys Asn Cys Asp Leu Met Trp Lys Gln Ser Ile
 100 105 110

Trp Thr Ser Thr Ile Ser Ser His Leu Ala Thr Lys His Leu Lys Glu
 115 120 125

Gly Gly Leu Leu Thr Leu Ala Gly Ala Lys Ala Ala Leu Asp Gly Thr
 130 135 140

Pro Gly Met Ile Gly Tyr Gly Met Ala Lys Gly Ala Val His Gln Leu
 145 150 155 160

Cys Gln Ser Leu Ala Gly Lys Asn Ser Gly Met Pro Pro Gly Ala Ala
 165 170 175

Ala Ile Ala Val Leu Pro Val Thr Leu Asp Thr Pro Met Asn Arg Lys
 180 185 190

Ser Met Pro Glu Ala Asp Phe Ser Ser Trp Thr Pro Leu Glu Phe Leu
 195 200 205

Val Glu Thr Phe His Asp Trp Ile Thr Gly Lys Asn Arg Pro Ser Ser
 210 215 220

Gly Ser Leu Ile Gln Val Val Thr Thr Glu Gly Arg Thr Glu Leu Thr
 225 230 235 240

Pro Ala Tyr Phe

<210> 94
 <211> 331
 <212> PRT
 <213> Homo sapiens

<400> 94

Met Gly Thr Pro Gln Lys Asp Val Ile Ile Lys Ser Asp Ala Pro Asp
 1 5 10 15

Thr Leu Leu Leu Glu Lys His Ala Asp Tyr Ile Ala Ser Tyr Gly Ser
 20 25 30

Lys Lys Asp Asp Tyr Glu Tyr Cys Met Ser Glu Tyr Leu Arg Met Ser
 35 40 45

0091650

Gly Ile Tyr Trp Gly Leu Thr Val Met Asp Leu Met Gly Gln Leu His
50 55 60

Arg Met Asn Arg Glu Glu Ile Leu Ala Phe Ile Lys Ser Cys Gln His
65 70 75 80

Glu Cys Gly Gly Ile Ser Ala Ser Ile Gly His Asp Pro His Leu Leu
85 90 95

Tyr Thr Leu Ser Ala Val Gln Ile Leu Thr Leu Tyr Asp Ser Ile Asn
100 105 110

Val Ile Asp Val Asn Lys Val Val Glu Tyr Val Lys Gly Leu Gln Lys
115 120 125

Glu Asp Gly Ser Phe Ala Gly Asp Ile Trp Gly Glu Ile Asp Thr Arg
130 135 140

Phe Ser Phe Cys Ala Val Ala Thr Leu Ala Leu Leu Gly Lys Leu Asp
145 150 155 160

Ala Ile Asn Val Glu Lys Ala Ile Glu Phe Val Leu Ser Cys Met Asn
165 170 175

Phe Asp Gly Gly Phe Gly Cys Arg Pro Gly Ser Glu Ser His Ala Gly
180 185 190

Gln Ile Tyr Cys Cys Thr Gly Phe Leu Ala Ile Thr Ser Gln Leu His
195 200 205

Gln Val Asn Ser Asp Leu Leu Gly Trp Trp Leu Cys Glu Arg Gln Leu
210 215 220

Pro Ser Gly Gly Leu Asn Gly Arg Pro Glu Lys Leu Pro Asp Val Cys
225 230 235 240

Tyr Ser Trp Trp Val Leu Ala Ser Leu Lys Ile Ile Gly Arg Leu His
245 250 255

Trp Ile Asp Arg Glu Lys Leu Arg Asn Phe Ile Leu Ala Cys Gln Asp
260 265 270

Glu Glu Thr Gly Gly Phe Ala Asp Arg Pro Gly Asp Met Val Asp Pro
275 280 285

Phe His Thr Leu Phe Gly Ile Ala Gly Leu Ser Leu Leu Gly Glu Glu
290 295 300

Gln Ile Lys Pro Val Asn Pro Val Phe Cys Met Pro Glu Glu Val Leu
305 310 315 320

Gln Arg Val Asn Val Gln Pro Glu Leu Val Ser
325 330

<210> 95
<211> 93
<212> PRT
<213> Homo sapiens

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<400> 95

Met Asn Ala Lys Val Val Val Val Leu Val Leu Val Leu Thr Ala Leu
1 5 10 15

Cys Leu Ser Asp Gly Lys Pro Val Ser Leu Ser Tyr Arg Cys Pro Cys
20 25 30

Arg Phe Phe Glu Ser His Val Ala Arg Ala Asn Val Lys His Leu Lys
35 40 45

Ile Leu Asn Thr Pro Asn Cys Ala Leu Gln Ile Val Ala Arg Leu Lys
50 55 60

Asn Asn Asn Arg Gln Val Cys Ile Asp Pro Lys Leu Lys Trp Ile Gln
65 70 75 80

Glu Tyr Leu Glu Lys Ala Leu Asn Lys Arg Phe Lys Met
85 90

<210> 96

<211> 381

<212> PRT

<213> Homo sapiens

<220>

<221> UNSURE

<222> (59)..(59)

<223> Xaa = any amino acid

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<223> Xaa = any amino acid

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<222> (318)..(318)

<223> Xaa = any amino acid

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<222> (330)..(330)

<223> Xaa = any amino acid

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<221> UNSURE

<222> (345)..(345)

<223> Xaa = any amino acid

<220>

<221> UNSURE

<222> (352)..(352)

<223> Xaa = any amino acid

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<220>
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 <222> (367)..(367)
 <223> Xaa = any amino acid

<220>
 <221> UNSURE
 <222> (369)..(369)
 <223> Xaa = any amino acid

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 <222> (376)..(376)
 <223> Xaa = any amino acid

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 <223> Xaa = any amino acid

<400> 96

Met	Trp	Arg	Ser	Leu	Gly	Leu	Ala	Leu	Ala	Leu	Cys	Leu	Leu	Pro	Ser	1	5	10	15
Gly	Gly	Thr	Glu	Ser	Gln	Asp	Gln	Ser	Ser	Leu	Cys	Lys	Gln	Pro	Pro	20	25	30	
Ala	Trp	Ser	Ile	Arg	Asp	Gln	Asp	Pro	Met	Leu	Asn	Ser	Asn	Gly	Ser	35	40	45	
Val	Thr	Val	Val	Ala	Leu	Leu	Gln	Ala	Ser	Xaa	Tyr	Leu	Cys	Ile	Ile	50	55	60	
Glu	Ala	Ser	Lys	Leu	Glu	Asp	Leu	Arg	Val	Lys	Leu	Lys	Lys	Glu	Gly	65	70	75	80
Tyr	Ser	Asn	Ile	Ser	Tyr	Ile	Val	Val	Asn	His	Gln	Gly	Ile	Ser	Ser	85	90	95	
Arg	Leu	Lys	Tyr	Thr	His	Leu	Lys	Asn	Lys	Val	Ser	Glu	His	Ile	Pro	100	105	110	
Val	Tyr	Gln	Gln	Glu	Glu	Asn	Gln	Thr	Asp	Val	Trp	Thr	Leu	Leu	Asn	115	120	125	
Gly	Ser	Lys	Asp	Asp	Phe	Leu	Ile	Tyr	Asp	Arg	Cys	Gly	Arg	Leu	Val	130	135	140	
Tyr	His	Leu	Gly	Leu	Pro	Phe	Ser	Phe	Leu	Thr	Phe	Pro	Tyr	Val	Glu	145	150	155	160
Glu	Ala	Ile	Lys	Ile	Ala	Tyr	Cys	Glu	Lys	Lys	Cys	Gly	Asn	Cys	Ser	165	170	175	

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Leu Thr Thr Leu Lys Asp Glu Asp Phe Cys Lys Arg Val Ser Leu Ala
180 185 190

Thr Val Asp Lys Thr Val Glu Thr Pro Ser Pro His Tyr His His Glu
195 200 205

His His His Asn His Gly His Gln His Leu Gly Ser Ser Glu Leu Ser
210 215 220

Glu Asn Gln Gln Pro Gly Ala Pro Asn Ala Pro Thr His Pro Ala Pro
225 230 235 240

Pro Gly Leu His His His His Lys His Lys Gly Gln His Arg Gln Gly
245 250 255

His Pro Glu Asn Arg Asp Met Pro Ala Ser Glu Asp Leu Gln Asp Leu
260 265 270

Gln Lys Lys Leu Cys Arg Lys Arg Cys Ile Asn Gln Leu Leu Cys Lys
275 280 285

Leu Pro Thr Asp Ser Glu Leu Ala Pro Arg Ser Xaa Cys Cys His Cys
290 295 300

Arg His Leu Ile Phe Glu Lys Thr Gly Ser Ala Ile Thr Xaa Gln Cys
305 310 315 320

Lys Glu Asn Leu Pro Ser Leu Cys Ser Xaa Gln Gly Leu Arg Ala Glu
325 330 335

Glu Asn Ile Thr Glu Ser Cys Gln Xaa Arg Leu Pro Pro Ala Ala Xaa
340 345 350

Gln Ile Ser Gln Gln Leu Ile Pro Thr Glu Ala Ser Ala Ser Xaa Arg
355 360 365

Xaa Lys Asn Gln Ala Lys Lys Xaa Glu Xaa Pro Ser Asn
370 375 380

<210> 97

<211> 220

<212> PRT

<213> Homo sapiens

<400> 97

Met Ala Ile Leu Phe Ala Val Val Ala Arg Gly Thr Thr Ile Leu Ala
1 5 10 15

Lys His Ala Trp Cys Gly Gly Asn Phe Leu Glu Val Thr Glu Gln Ile
20 25 30

Leu Ala Lys Ile Pro Ser Glu Asn Asn Lys Leu Thr Tyr Ser His Gly
35 40 45

Asn Tyr Leu Phe His Tyr Ile Cys Gln Asp Arg Ile Val Tyr Leu Cys
50 55 60

Ile Thr Asp Asp Asp Phe Glu Arg Ser Arg Ala Phe Asn Phe Leu Asn
65 70 75 80

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Glu Ile Lys Lys Arg Phe Gln Thr Thr Tyr Gly Ser Arg Ala Gln Thr
85 90 95

Ala Leu Pro Tyr Ala Met Asn Ser Glu Phe Ser Ser Val Leu Ala Ala
100 105 110

Gln Leu Lys His His Ser Glu Asn Lys Gly Leu Asp Lys Val Met Glu
115 120 125

Thr Gln Ala Gln Val Asp Glu Leu Lys Gly Ile Met Val Arg Asn Ile
130 135 140

Asp Leu Val Ala Gln Arg Gly Glu Arg Leu Glu Leu Leu Ile Asp Lys
145 150 155 160

Thr Glu Asn Leu Val Asp Ser Ser Val Thr Phe Lys Thr Thr Ser Arg
165 170 175

Asn Leu Ala Arg Ala Met Cys Met Lys Asn Leu Lys Leu Thr Ile Ile
180 185 190

Ile Ile Ile Val Ser Ile Val Phe Ile Tyr Ile Ile Val Ser Pro Leu
195 200 205

Cys Gly Gly Phe Thr Trp Pro Ser Cys Val Lys Lys
210 215 220

<210> 98
<211> 1736
<212> PRT
<213> Homo sapiens

<400> 98

Met Glu Glu Thr Ala Ile Trp Glu Gln His Thr Val Thr Leu His Arg
1 5 10 15

Ala Pro Gly Phe Gly Phe Gly Ile Ala Ile Ser Gly Gly Arg Asp Asn
20 25 30

Pro His Phe Gln Ser Gly Glu Thr Ser Ile Val Ile Ser Asp Val Leu
35 40 45

Lys Gly Gly Pro Ala Glu Gly Gln Leu Gln Glu Asn Asp Arg Val Ala
50 55 60

Met Val Asn Gly Val Ser Met Asp Asn Val Glu His Ala Phe Ala Val
65 70 75 80

Gln Gln Leu Arg Lys Ser Gly Lys Asn Ala Lys Ile Thr Ile Arg Arg
85 90 95

Lys Lys Lys Val Gln Ile Pro Val Ser Arg Pro Asp Pro Glu Pro Val
100 105 110

Ser Asp Asn Glu Glu Asp Ser Tyr Asp Glu Glu Ile His Asp Pro Arg
115 120 125

Ser Gly Arg Ser Gly Val Val Asn Arg Arg Ser Glu Lys Ile Trp Pro

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130		135		140
Arg Asp Arg Ser Ala Ser Arg Glu Arg Ser Leu Ser Pro Arg Ser Asp				
145		150		155 160
Arg Arg Ser Val Ala Ser Ser Gln Pro Ala Lys Pro Thr Lys Val Thr				
	165		170	175
Leu Val Lys Ser Arg Lys Asn Glu Glu Tyr Gly Leu Arg Leu Ala Ser				
	180		185	190
His Ile Phe Val Lys Glu Ile Ser Gln Asp Ser Leu Ala Ala Arg Asp				
	195	200		205
Gly Asn Ile Gln Glu Gly Asp Val Val Leu Lys Ile Asn Gly Thr Val				
	210	215		220
Thr Glu Asn Met Ser Leu Thr Asp Ala Lys Thr Leu Ile Glu Arg Ser				
	225	230		235 240
Lys Gly Lys Leu Lys Met Val Val Gln Arg Asp Glu Arg Ala Thr Leu				
	245		250	255
Leu Asn Val Pro Asp Leu Ser Asp Ser Ile His Ser Ala Asn Ala Ser				
	260		265	270
Glu Arg Asp Asp Ile Ser Glu Ile Gln Ser Leu Ala Ser Asp His Ser				
	275	280		285
Gly Arg Ser His Asp Arg Pro Pro Arg Arg Ser Arg Ser Arg Ser Pro				
	290	295		300
Asp Gln Arg Ser Glu Pro Ser Asp His Ser Arg His Ser Pro Gln Gln				
	305	310		315 320
Pro Ser Asn Gly Ser Leu Arg Ser Arg Asp Glu Glu Arg Ile Ser Lys				
	325		330	335
Pro Gly Ala Val Ser Thr Pro Val Lys His Ala Asp Asp His Thr Pro				
	340		345	350
Lys Thr Val Glu Glu Val Thr Val Glu Arg Asn Glu Lys Gln Thr Pro				
	355		360	365
Ser Leu Pro Glu Pro Lys Pro Val Tyr Ala Gln Val Gly Asn Gln Met				
	370	375		380
Trp Ile Tyr Leu Ser Val His Leu Met Val Ser Tyr Leu Ile Gln Leu				
	385	390		395 400
Met Lys Met Gly Phe Leu Arg Pro Ser Met Lys Leu Val Lys Phe Arg				
	405		410	415
Lys Gly Asp Ser Val Gly Leu Arg Leu Ala Gly Gly Asn Asp Val Gly				
	420		425	430
Ile Phe Val Ala Gly Val Leu Glu Asp Ser Pro Ala Ala Lys Glu Gly				
	435		440	445
Leu Glu Glu Gly Asp Gln Ile Leu Arg Val Asn Asn Val Asp Phe Thr				

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450	455	460
Asn Ile Ile Arg Glu Glu Ala Val Leu Phe Leu Leu Asp Leu Pro Lys		
465	470	475 480
Gly Glu Glu Val Thr Ile Leu Ala Gln Lys Lys Lys Asp Val Tyr Arg		
	485	490 495
Arg Ile Val Glu Ser Asp Val Gly Asp Ser Phe Tyr Ile Arg Thr His		
	500	505 510
Phe Glu Tyr Glu Lys Glu Ser Pro Tyr Gly Leu Ser Phe Asn Lys Gly		
	515	520 525
Glu Val Phe Arg Ala Val Asp Thr Leu Tyr Asn Gly Lys Leu Gly Ser		
	530	535 540
Trp Leu Ala Ile Arg Ile Gly Lys Asn His Lys Glu Val Glu Arg Gly		
	545	550 555 560
Ile Ile Pro Asn Lys Asn Arg Ala Glu Gln Leu Ala Ser Val Gln Tyr		
	565	570 575
Thr Leu Pro Lys Thr Ala Gly Gly Asp Arg Ala Asp Phe Trp Arg Phe		
	580	585 590
Arg Gly Leu Arg Ser Ser Lys Arg Asn Leu Arg Lys Ser Arg Glu Asp		
	595	600 605
Leu Ser Ala Gln Pro Val Gln Thr Lys Phe Pro Ala Tyr Glu Arg Val		
	610	615 620
Val Leu Arg Glu Ala Gly Phe Leu Arg Pro Val Thr Ile Phe Gly Pro		
	625	630 635 640
Ile Ala Asp Val Ala Arg Glu Lys Leu Ala Arg Glu Glu Pro Asp Ile		
	645	650 655
Tyr Gln Ile Ala Lys Ser Glu Pro Arg Asp Ala Gly Thr Asp Gln Arg		
	660	665 670
Ser Ser Gly Tyr Ile Arg Leu His Thr Ile Lys Gln Ile Ile Asp Gln		
	675	680 685
Asp Lys His Ala Leu Leu Asp Val Thr Pro Asn Ala Val Asp Arg Leu		
	690	695 700
Asn Tyr Ala Gln Trp Tyr Pro Ile Val Val Phe Leu Asn Pro Asp Ser		
	705	710 715 720
Lys Gln Gly Val Lys Thr Met Arg Met Arg Leu Cys Pro Glu Ser Arg		
	725	730 735
Lys Ser Ala Arg Lys Leu Tyr Glu Arg Ser His Lys Leu Ala Lys Asn		
	740	745 750
Asn His His Leu Phe Thr Thr Thr Ile Asn Leu Asn Ser Met Asn Asp		
	755	760 765
Gly Trp Tyr Gly Ala Leu Lys Glu Ala Val Gln Gln Gln Gln Asn Gln		

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770	775	780
Leu Val Trp Val Ser Glu Gly Lys Ala Asp Gly Ala Thr Ser Asp Asp 785 790 795 800		
Leu Asp Leu His Asp Asp Arg Leu Ser Tyr Leu Ser Ala Pro Gly Ser 805 810 815		
Glu Tyr Ser Met Tyr Ser Thr Asp Ser Arg His Thr Ser Asp Tyr Glu 820 825 830		
Asp Thr Asp Thr Glu Gly Gly Ala Tyr Thr Asp Gln Glu Leu Asp Glu 835 840 845		
Thr Leu Asn Asp Glu Val Gly Thr Pro Pro Glu Ser Ala Ile Thr Arg 850 855 860		
Ser Ser Glu Pro Val Arg Glu Asp Ser Ser Gly Met His His Glu Asn 865 870 875 880		
Gln Thr Tyr Pro Pro Tyr Ser Pro Gln Ala Gln Pro Gln Pro Ile His 885 890 895		
Arg Ile Asp Ser Pro Gly Phe Lys Pro Ala Ser Gln Gln Lys Ala Glu 900 905 910		
Ala Ser Ser Pro Val Pro Tyr Leu Ser Pro Glu Thr Asn Pro Ala Ser 915 920 925		
Ser Thr Ser Ala Val Asn His Asn Val Asn Leu Thr Asn Val Arg Leu 930 935 940		
Glu Glu Pro Thr Pro Ala Pro Ser Thr Ser Tyr Ser Pro Gln Ala Asp 945 950 955 960		
Ser Leu Arg Thr Pro Ser Thr Glu Ala Ala His Ile Met Leu Arg Asp 965 970 975		
Gln Glu Pro Ser Leu Ser Ser His Val Asp Pro Thr Lys Val Tyr Arg 980 985 990		
Lys Asp Pro Tyr Pro Glu Glu Met Met Arg Gln Asn His Val Leu Lys 995 1000 1005		
Gln Pro Ala Val Ser His Pro Gly His Arg Pro Asp Lys Glu Pro 1010 1015 1020		
Asn Leu Thr Tyr Glu Pro Gln Leu Pro Tyr Val Glu Lys Gln Ala 1025 1030 1035		
Ser Arg Asp Leu Glu Gln Pro Thr Tyr Arg Tyr Glu Ser Ser Ser 1040 1045 1050		
Tyr Thr Asp Gln Phe Ser Arg Asn Tyr Glu His Arg Leu Arg Tyr 1055 1060 1065		
Glu Asp Arg Val Pro Met Tyr Glu Glu Gln Trp Ser Tyr Tyr Asp 1070 1075 1080		
Asp Lys Gln Pro Tyr Pro Ser Arg Pro Pro Phe Asp Asn Gln His		

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1085	1090	1095
Ser Gln Asp Leu Asp Ser	Arg Gln His Pro Glu	Glu Ser Ser Glu
1100	1105	1110
Arg Gly Tyr Phe Pro Arg	Phe Glu Glu Pro Ala	Pro Leu Ser Tyr
1115	1120	1125
Asp Ser Arg Pro Arg Tyr	Glu Gln Ala Pro Arg	Ala Ser Ala Leu
1130	1135	1140
Arg His Glu Glu Gln Pro	Ala Pro Gly Tyr Asp	Thr His Gly Arg
1145	1150	1155
Leu Arg Pro Glu Ala Gln	Pro His Pro Ser Ala	Gly Pro Lys Pro
1160	1165	1170
Ala Glu Ser Lys Gln Tyr	Phe Glu Gln Tyr Ser	Arg Ser Tyr Glu
1175	1180	1185
Gln Val Pro Pro Gln Gly	Phe Thr Ser Arg Ala	Gly His Phe Glu
1190	1195	1200
Pro Leu His Gly Ala Ala	Ala Val Pro Pro Leu	Ile Pro Ser Ser
1205	1210	1215
Gln His Lys Pro Glu Ala	Leu Pro Ser Asn Thr	Lys Pro Leu Pro
1220	1225	1230
Pro Pro Pro Thr Gln Thr	Glu Glu Glu Asp	Pro Ala Met Lys
1235	1240	1245
Pro Gln Ser Val Leu Thr	Arg Val Lys Met Phe	Glu Asn Lys Arg
1250	1255	1260
Ser Ala Ser Leu Glu Thr	Lys Lys Asp Val Asn	Asp Thr Gly Ser
1265	1270	1275
Phe Lys Pro Pro Glu Val	Ala Ser Lys Pro Ser	Gly Ala Pro Ile
1280	1285	1290
Ile Gly Pro Lys Pro Thr	Ser Gln Asn Gln Phe	Ser Glu His Asp
1295	1300	1305
Lys Thr Leu Tyr Arg Ile	Pro Glu Pro Gln Lys	Pro Gln Leu Lys
1310	1315	1320
Pro Pro Glu Asp Ile Val	Arg Ser Asn His Tyr	Asp Pro Glu Glu
1325	1330	1335
Asp Glu Glu Tyr Tyr Arg	Lys Gln Leu Ser Tyr	Phe Asp Arg Arg
1340	1345	1350
Ser Phe Glu Asn Lys Pro	Pro Ala His Ile Ala	Ala Ser His Leu
1355	1360	1365
Ser Glu Pro Ala Lys Pro	Ala His Ser Gln Asn	Gln Ser Asn Phe
1370	1375	1380
Ser Ser Tyr Ser Ser Lys	Gly Lys Pro Pro Glu	Ala Asp Gly Val

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1385						1390						1395					
Asp	Arg	Ser	Phe	Gly	Glu	Lys	Arg	Tyr	Glu	Pro	Ile	Gln	Ala	Thr			
1400						1405						1410					
Pro	Pro	Pro	Pro	Pro	Leu	Pro	Ser	Gln	Tyr	Ala	Gln	Pro	Ser	Gln			
1415						1420						1425					
Pro	Val	Thr	Ser	Ala	Ser	Leu	His	Ile	His	Ser	Lys	Gly	Ala	His			
1430						1435						1440					
Gly	Glu	Gly	Asn	Ser	Val	Ser	Leu	Asp	Phe	Gln	Asn	Ser	Leu	Val			
1445						1450						1455					
Ser	Lys	Pro	Asp	Pro	Pro	Pro	Ser	Gln	Asn	Lys	Pro	Ala	Thr	Phe			
1460						1465						1470					
Arg	Pro	Pro	Asn	Arg	Glu	Asp	Thr	Ala	Gln	Ala	Ala	Phe	Tyr	Pro			
1475						1480						1485					
Gln	Lys	Ser	Phe	Pro	Asp	Lys	Ala	Pro	Val	Asn	Gly	Thr	Glu	Gln			
1490						1495						1500					
Thr	Gln	Lys	Thr	Val	Thr	Pro	Ala	Tyr	Asn	Arg	Phe	Thr	Pro	Lys			
1505						1510						1515					
Pro	Tyr	Thr	Ser	Ser	Ala	Arg	Pro	Phe	Glu	Arg	Lys	Phe	Glu	Ser			
1520						1525						1530					
Pro	Lys	Phe	Asn	His	Asn	Leu	Leu	Pro	Ser	Glu	Thr	Ala	His	Lys			
1535						1540						1545					
Pro	Asp	Leu	Ser	Ser	Lys	Thr	Pro	Thr	Ser	Pro	Lys	Thr	Leu	Val			
1550						1555						1560					
Lys	Ser	His	Ser	Leu	Ala	Gln	Pro	Pro	Glu	Phe	Asp	Ser	Gly	Val			
1565						1570						1575					
Glu	Thr	Phe	Ser	Ile	His	Ala	Glu	Lys	Pro	Lys	Tyr	Gln	Ile	Asn			
1580						1585						1590					
Asn	Ile	Ser	Thr	Val	Pro	Lys	Ala	Ile	Pro	Val	Ser	Pro	Ser	Ala			
1595						1600						1605					
Val	Glu	Glu	Asp	Glu	Asp	Glu	Asp	Gly	His	Thr	Val	Val	Ala	Thr			
1610						1615						1620					
Ala	Arg	Gly	Ile	Phe	Asn	Ser	Asn	Gly	Gly	Val	Leu	Ser	Ser	Ile			
1625						1630						1635					
Glu	Thr	Gly	Val	Ser	Ile	Ile	Ile	Pro	Gln	Gly	Ala	Ile	Pro	Glu			
1640						1645						1650					
Gly	Val	Glu	Gln	Glu	Ile	Tyr	Phe	Lys	Val	Cys	Arg	Asp	Asn	Ser			
1655						1660						1665					
Ile	Leu	Pro	Pro	Leu	Asp	Lys	Glu	Lys	Gly	Glu	Thr	Leu	Leu	Ser			
1670						1675						1680					
Pro	Leu	Val	Met	Cys	Gly	Pro	His	Gly	Leu	Lys	Phe	Leu	Lys	Pro			

1685 1690 1695
 Val Glu Leu Arg Leu Pro His Cys Asp Pro Lys Thr Trp Gln Asn
 1700 1705 1710
 Lys Cys Leu Pro Gly Asp Pro Asn Tyr Leu Val Gly Ala Asn Cys
 1715 1720 1725
 Val Ser Val Leu Ile Asp His Phe
 1730 1735

<210> 99
 <211> 93
 <212> PRT
 <213> Homo sapiens

<400> 99

Met Gln Arg Arg Gly Gln Pro Leu Glu Asn His Val Ala Leu Ile His
 1 5 10 15
 Trp Gln Ser Ala Gly Ile Pro Ala Ser Lys Val His Asn Tyr Cys Asn
 20 25 30
 Met Lys Lys Ser Arg Leu Gly Arg Ser Arg Ala Val Arg Ile Ser Gln
 35 40 45
 Pro Leu Leu Ser Pro Arg Arg Cys Pro Leu His Leu Thr Glu Arg Gly
 50 55 60
 Ala Gly Leu Leu Gln Pro Gln Pro Gln Gly Pro Val Arg Thr Pro Gly
 65 70 75 80
 Pro Pro Pro Gly Val Thr Gln Arg Pro Arg Thr Thr Glu
 85 90

<210> 100
 <211> 582
 <212> PRT
 <213> Homo sapiens

<400> 100

Asp Val Ser Arg Cys Ala His Arg Ala Arg Pro Gly Ala Ile Met Leu
 1 5 10 15
 Leu Leu Pro Ser Ala Ala Asp Gly Arg Gly Thr Ala Ile Thr His Ala
 20 25 30
 Leu Thr Ser Ala Ser Thr Leu Cys Gln Val Glu Pro Val Gly Arg Trp
 35 40 45
 Phe Glu Ala Phe Val Lys Arg Arg Asn Arg Asn Ala Ser Ala Ser Phe
 50 55 60
 Gln Glu Leu Glu Asp Lys Lys Glu Leu Ser Glu Glu Ser Glu Asp Glu
 65 70 75 80
 Glu Leu Gln Leu Glu Glu Phe Pro Met Leu Lys Thr Leu Asp Pro Lys
 85 90 95

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Asp Trp Lys Asn Gln Asp His Tyr Ala Val Leu Gly Leu Gly His Val
100 105 110

Arg Tyr Lys Ala Thr Gln Arg Gln Ile Lys Ala Ala His Lys Ala Met
115 120 125

Val Leu Lys His His Pro Asp Lys Arg Lys Ala Ala Gly Glu Pro Ile
130 135 140

Lys Glu Gly Asp Asn Asp Tyr Phe Thr Cys Ile Thr Lys Ala Tyr Glu
145 150 155 160

Met Leu Ser Asp Pro Val Lys Arg Arg Ala Phe Asn Ser Val Asp Pro
165 170 175

Thr Phe Asp Asn Ser Val Pro Ser Lys Ser Glu Ala Lys Asp Asn Phe
180 185 190

Phe Glu Val Phe Thr Pro Val Phe Glu Arg Asn Ser Arg Trp Ser Asn
195 200 205

Lys Lys Asn Val Pro Lys Leu Gly Asp Met Asn Ser Ser Phe Glu Asp
210 215 220

Val Asp Ile Phe Tyr Ser Phe Trp Tyr Asn Phe Asp Ser Trp Arg Glu
225 230 235 240

Phe Ser Tyr Leu Asp Glu Glu Glu Lys Glu Lys Ala Glu Cys Arg Asp
245 250 255

Glu Arg Arg Trp Ile Glu Lys Gln Asn Gly Ala Thr Arg Ala Gln Arg
260 265 270

Lys Lys Glu Glu Met Asn Arg Ile Arg Thr Leu Val Asp Asn Ala Tyr
275 280 285

Ser Cys Asp Pro Arg Ile Lys Lys Phe Lys Glu Glu Glu Lys Ala Lys
290 295 300

Lys Glu Ala Glu Lys Lys Ala Lys Ala Glu Ala Lys Arg Lys Glu Gln
305 310 315 320

Glu Ala Lys Glu Lys Gln Arg Gln Ala Glu Leu Glu Ala Ala Arg Leu
325 330 335

Ala Lys Glu Lys Glu Glu Glu Glu Val Arg Gln Gln Ala Leu Leu Ala
340 345 350

Lys Lys Glu Lys Asp Ile Gln Lys Lys Ala Ile Lys Lys Glu Arg Gln
355 360 365

Lys Leu Arg Asn Ser Cys Lys Ile Glu Glu Ile Asn Glu Gln Ile Arg
370 375 380

Lys Glu Lys Glu Glu Ala Glu Ala Arg Met Arg Gln Ala Ser Lys Asn
385 390 395 400

Thr Glu Lys Ser Thr Gly Gly Gly Gly Asn Gly Ser Lys Asn Trp Ser
405 410 415

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Glu	Asp	Asp	Leu	Gln	Leu	Leu	Ile	Lys	Ala	Val	Asn	Leu	Phe	Pro	Ala
			420						425			430			
Arg	Thr	Asn	Ser	Arg	Trp	Glu	Val	Ile	Ala	Asn	Tyr	Met	Asn	Ile	His
			435						440			445			
Ser	Ser	Ser	Gly	Val	Lys	Arg	Thr	Ala	Lys	Asp	Val	Ile	Gly	Lys	Ala
			450						455			460			
Lys	Ser	Leu	Gln	Lys	Leu	Asp	Pro	His	Gln	Lys	Asp	Asp	Ile	Asn	Lys
			465						470			475			
Lys	Ala	Phe	Asp	Lys	Phe	Lys	Lys	Glu	His	Gly	Val	Val	Pro	Gln	Ala
			485						490			495			
Asp	Asn	Ala	Thr	Pro	Ser	Glu	Arg	Phe	Glu	Gly	Pro	Tyr	Thr	Asp	Phe
			500						505			510			
Thr	Pro	Trp	Thr	Thr	Glu	Glu	Gln	Lys	Leu	Leu	Glu	Gln	Ala	Leu	Lys
			515						520			525			
Thr	Tyr	Pro	Val	Asn	Thr	Pro	Glu	Arg	Trp	Glu	Lys	Ile	Ala	Glu	Ala
			530						535			540			
Val	Pro	Gly	Arg	Thr	Lys	Lys	Asp	Cys	Met	Lys	Arg	Tyr	Lys	Glu	Leu
			545						550			555			
Val	Glu	Met	Val	Lys	Ala	Lys	Lys	Ala	Ala	Gln	Glu	Gln	Val	Leu	Asn
			565						570			575			
Ala	Ser	Arg	Ala	Lys	Lys										
			580												